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Water

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Handbook of Procedures

Interim Issuances

Construction Grants Program for Municipal Wastewater Treatment Works

MCD-03

INTERIM ISSUANCE

Handbook of Procedures

Construction Grants Program for Municipal Wastewater Treatment Works

Fall 1979

Municipal Construction Division
Water Program Operations
Office of Water and Waste Management

U.S. Environmental Protection Agency
Washington, D.C. 20460

FOREWORD

This Handbook identifies and explains the many procedures to be followed by those in the Regional Offices and the States who are responsible for bringing municipal wastewater treatment projects from their conception to completion.

The procedures are set forth sequentially and are expressed in logical and concise terms. The operational tasks described are applicable to the program as a whole and are intended to serve as an operational standard so that this complex, multifaceted Construction Grants Program can move forward as a national program, uniformly administered.

Through the thoughtful application of the procedures described in the Handbook, the water pollution control goals to which the Environmental Protection Agency is dedicated can be more effectively achieved.

ACKNOWLEDGMENTS

The Handbook, including the revisions reflected in this edition, was prepared by the Municipal Construction Division, Office of Water Program Operations, Office of Water and Waste Management.

The basic organization of the Handbook and initial drafts of its revisions were prepared under a consulting contract with EcolSciences, Inc. Albert L. Pelmoter, Chief, Program Policy Branch, was the project manager and responsible for the Handbook's overall development. Most of the basic text was prepared by Albert T. Bowyer, the contractor's project officer, along with Joseph Grieshaber of his staff. Construction Grants Program staff from Headquarters and the Regions, too numerous to mention, contributed considerably to the reviewing and editing of the drafted text.

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A. GENERAL

This chapter describes the organization of the Handbook and its use in administering the construction grants program. The Handbook of Procedures (MCD-03) was first published in February 1976 and took into account laws, regulations and policy in effect as of July 1, 1975. Subsequently three transmittal memoranda (TM's) were issued to reflect policy changes occurring after the original text was published.

On December 27, 1977 Congress enacted "The Clean Water Act" PL 95-217 (CWA) which provided mid-course corrections to "The Federal Water Pollution Control Act Amendments of 1972" (PL 92-500). "The Clean Water Act" mandated significant changes in the conduct of the construction grants program necessitating the publication of this second edition of the Handbook of Procedures.

B. SECOND EDITION CHANGES

The second edition of the Handbook of Procedures replaces the first edition dated February 1976, and reflects the laws, regulations and policies in effect as of October 1, 1979.

The first edition used italics when a direct quotation was cited from the law or regulations. The second edition uses quotation marks for this purpose and cites references as appropriate. Italics are reserved for use of future updates of this second edition as explained in this chapter under item D.5 Updating. Previous italicized updated material from the first edition are not specifically identified in the second edition but are included in normal typeface.

The first edition made reference to Program Guidance Memoranda (PG's) and cross-referenced the corresponding Program Requirements Memoranda (PRM's). Only PRM's are referenced in the second edition.

C. LEGISLATIVE HISTORY

Federal financial aid in the construction of municipal sewage treatment works was first authorized in 1948. This was a loan program which was never implemented because necessary funds were not appropriated by Congress.

The Federal Water Pollution Control Act of 1956, Public Law 84-660 (PL 84-660), included the first authorization for Federal grants to assist in the construction of waste treatment works. Selection of the projects to be funded was made the responsibility of the States, reflecting the policy of Congress to recognize, preserve and protect the primary responsibilities of the States in preventing and controlling water pollution. The Act authorized an appropriation of fifty million dollars a year for such grants to be allocated to the States on the basis of relative population and per capita income. Grants from the State allocations were made directly to applicants for projects certified by the State as entitled to priority for a grant over other eligible projects in the State on the basis of water pollution control and financial needs. The grants were limited to 30% of the eligible project cost not to exceed $250,000.

Appropriations were increased during the early 1960's, and major amendments to PL 84-660 occurred in 1966. At that time appropriation authorizations were increased, the maximum dollar limitation on grants was dropped, the Federal share was increased to a maximum of 55%, and provision was made for future reimbursement of State or local funds used in lieu of Federal funds in construction of projects when Federal funds were inadequate to provide grants for all eligible projects within a State.

The 1966 Amendments were the last major legislative changes prior to the passage of PL 92-500 in 1972. There were, however, other legislative actions which occurred in that period which had a major impact upon the program. Most important of these were enactment of the National Environmental Policy Act (NEPA) in 1969, and creation of the U.S. Environmental Protection Agency (EPA) in 1970.

Enactment of PL 92-500 in 1972 resulted in extensive changes in the construction grants program. The Federal share was increased to 75% of eligible costs and projects involving sewage collection system construction, sewer system rehabilitation, and (under certain conditions) combined sewer system separation became eligible for grants. In addition, funds were included to reimburse those projects which had proceeded under the reimbursement provisions of the earlier statutes. Also, a strong enforcement program was called for which would encompass the statewide planning process, areawide planning, facilities planning, the construction grants program, and discharge permits.

PL 92-500 also introduced the three step grant process i.e. Step 1 - planning; Step 2 - design; Step 3 - construction. Under this Act, grantees were required to provide a minimum of secondary treatment to be eligible for a Federal grant. New terminology and concepts were introduced such as facilities planning, infiltration/inflow analysis, environmental assessment, user charge/industrial cost recovery, cost-effectiveness, best practical waste treatment technology, etc. The Act also authorized $18 billion over a five year period to support the construction grants program and provide for a continuity of funding.

PL 92-500 was amended on December 27, 1977 by the Clean Water Act, PL 95-217 (CWA). This bill contained mid-course corrections to the earlier legislation and authorized $24.5 billion in support of the construction grants program over a five year period. Several significant changes were introduced into the construction grants program. For example grantees are now required to evaluate innovative and alternative (I&A) technologies when planning their projects. The mandatory I&A evaluations reflect the desire of Congress to bring about conservation through recycling and more efficient energy utilization or recovery. For approved I&A projects, the Federal grant share for Step 2 and Step 3 projects may be increased to 85%.

In addition, the CWA encouraged and provided support funds for, the delegation of the operation of the construction grants program to State agencies which can demonstrate the necessary competency to effectively conduct the program. And, to facilitate administering grants for small communities, a combined Step 2 + 3 grant can be used where appropriate.

D. HANDBOOK ORGANIZATION AND USE

1. Purpose

This Handbook is intended to serve as a guide in processing grant applications for Step 1, Step 2, Step 3 and Step 2 + 3 projects and addresses the processing of grants as of October 1, 1979.

Generally, the Handbook addresses processing procedures for administrative and technical functions separately. However, whenever possible, the review of administrative and technical functions should be done concurrently.

While the administrative procedures to be followed in processing construction grant applications are summarized in this Handbook, a more comprehensive discussion of overall administrative requirements is contained in the Grants Administration Manual prepared by the Grants Administration Division, Office of Resources Management, Office of Planning and Management, EPA.

2. Structure

The processing of grant applications for Step 1, Step 2, Step 3, and Step 2 + 3 projects is described in Chapters IV, V, and VI respectively. These Chapters are preceded by background and general information in Chapters I, II and III and followed by the financial considerations of Chapter VII. The latter chapter contains information common to the processing of each step grant. Particular attention is given to eligible costs and the processing of payment requests.

The Handbook begins with recommendations for the pre-application conference and proceeds through the completion of construction, including start-up and operation and maintenance requirements. Review procedures relating to administrative and technical requirements are identified separately but grouped together where they apply to a single function wherever possible. Technical requirements, which are either complex or extensive, are in sufficient detail to assure uniform treatment of key aspects of these requirements.

The construction grant program is concerned with four types of projects:

Step 1 Projects - Planning
Step 2 Projects - Design
Step 3 Projects - Construction
Step 2 + 3 Projects - Design and Construction

An applicant receiving a grant for a Step 1 project, prepares a facilities plan. The completed facilities plan is an application requirement for a Step 2 project grant. However, the review of the facilities plan is described in Chapter IV as a part of the Step 1 project grant processing procedures. Once the facilities plan is approved by both the State and EPA, the applicant need only submit the additional administrative and technical requirements for a Step 2 project grant as described in Chapter V. Similarly, the review of plans and specifications is described in Chapter V as part of the Step 2 project grant processing procedures although it is a requirement for a Step 3 project grant.

3. Format

Each review function is necessary to insure compliance with statutory or program requirements. Review procedures are presented in the following format:

Purpose:

A brief explanation of the need for the review is given.

Discussion:

The program requirement is placed in program perspective and information is given on such things as general operating policy, important underlying issues, key considerations in approaching the topic under review and how the topic relates to the greater problem of which it is a part.

Procedures:

The procedures in the review process are briefly described. Where specific program items are required, they are listed. Other more general review items are included as a reminder. However, the review procedures listed here are not substitutions for nor do they supersede requirements described in greater detail in the appropriate references. Check lists may be utilized as reminders of review requirements.

References:

Appropriate laws, regulations, Program Requirements Memoranda (PRM), Program Operations Memoranda (POM), guidelines, technical bulletins, etc. are cited. Copies of such reference material can generally be found in the EPA Regional or State Agency Offices.

Some of the review procedures are self-explanatory or do not lend themselves to the above format. In these cases, the requirements or procedures are briefly described.

4. Related Material

The review procedures in this Handbook describe the essence or minimum requirements necessary in processing of construction grants. More detailed information may be obtained by reading the reference materials which are identified throughout the text wherever they are applicable. Generally, references concerning technical matters have been limited to EPA publications.

Although the processing steps set forth in the Handbook are intended to bring about uniformity in the servicing of construction grant applications nationwide, differences in the structure of EPA Regional or State Agency Offices may require some adjustment in the manner in which various review procedures are followed.

5. Updating

The Handbook will be updated as changes in laws, regulations, or policy occur. Responsibility for revising and updating the Handbook rests with the Program Policy Branch, Municipal Construction Division, Office of Water Program Operations, and revisions will be issued from that office.

In July 1976, EPA ceased to use Program Guidance Memoranda (PGMs) to communicate Construction Grant Program directives. In their place, an issuance system was established designed to differentiate between policy and operational matters. Included in the new system was a mechanism for assuring that the essence of emerging policy and procedure changes were concurrently readied for inclusion in the Handbook.

The new system consists of (1) Program Requirements Memoranda (PRMs) which convey program policy. (In terms of administering the Construction Grants Program, the provisions of PRMs are to be carried out to the same extent as regulations); (2) Program Operations Memoranda (POMs) which are for internal or "housekeeping" matters, i.e. they relate to administrative procedures to be followed by Regional or State staffs in processing grant documents or preparing program reports; and (3) Transmittal Memoranda (TMs) which contain changes to the Handbook. In implementing the new system, all PGMs were reviewed. Those no longer needed were purged and those which remained in effect were redesignated as PRMs 75-1 through 75-40. (See PRM 76-2).

As indicated above, Handbook revisions will be forwarded by a Transmittal Memorandum (TM). Each TM will be designated with a sequential number (e.g., TM: 80-1) indicating the fiscal year and number of the issuance, and will provide specific instructions for removal of obsolete pages and exhibits and insertion of new material. So that changes can be readily identified, text revisions will be printed in italics and underlined.

Additionally, each revised page will show the TM number, month and year (bottom right side) in which revision was made.

The TM may be detached from the material transmitted and inserted in Appendix C. "Transmittal Memoranda". Regularly, for verification purposes, a listing of the changes will be distributed to holders of the Handbook.

6. Appendices

This Handbook contains the following appendices:

Appendix A: a schematic flow diagram for the processing of construction grants.

Appendix B: exhibits of frequently used OMB and EPA forms.

Appendix C: "Transmittal Memoranda", (TMs), issued by Headquarters to explain revisions to the Handbook may be stored here.

CHAPTER II

STATE PROGRAM

A. PLANNING PROCESSES

B. STATE STRATEGY AND PROGRAM

A. PLANNING PROCESSES

1. General

This chapter is designed to provide a general working knowledge of those planning portions of The Clean Water Act, PL 95-217, (CWA) which directly affect the construction grants program.

PL 92-500 contained complex and far reaching pollution control measures and firmly committed the Federal Government to eliminate pollution of the nation's waterways. PL 95-217 amended PL 92-500 strengthening its goals and reaffirming its commitments. Even though there is a firm Federal commitment, the States continue to retain primary responsibility for the establishment of water quality standards, the control of waste discharges, and the enforcement of these standards. However, to insure a sound basis of control PL 95-217 authorized the continuation of the planning processes being carried out by the States under earlier legislation.

2. State Continuing Planning Process

Section 303(e) of the CWA requires each State to establish and maintain a continuing planning process (CPP) which must be reviewed and approved periodically by the Regional Administrator. The continuous planning process must be consistent with the Act and include, as a minimum, the following:

a. effluent limitations and schedules of compliance to achieve water quality standards;

b. an areawide waste treatment management plan or basin plan under sections 208 and 209 of the Act;

c. total maximum daily waste load allocations;

d. procedures for revisions of the plans;

e. adequate authority for intergovernmental cooperation;

f. adequate implementation procedures and schedules of compliance for new or revised water quality standards,

g. methods of obtaining control over the disposal of all residual waste from any water treatment processing;

h. an inventory and ranking, in order of priority, of waste treatment works necessary to be constructed to meet water quality standards.

The output of the continuing planning process is a document which describes the operating policies, procedures and practices of a State in implementing the eight requirements listed above. The actual function of planning, implementing, reassessing, revising and implementing these requirements has been labeled the Water Quality Management (WQM) process. Three of the eight requirements listed above are of particular concern to the construction grants program, namely:

- water quality management plans (referred to in earlier years as "208" plans)

- waste load allocations (referred to in earlier years and contained in "basin plans")

- State priority system and list (discussed in Section B of this chapter).

All of these agency programs and functions have as their common objective the attainment of water quality standards. These standards are or have been established by the States and approved by EPA under the CWA or earlier legislation.

Re: 40 CFR Part 35, Subpart G

3. Waste Load Allocations

As an integral part of the WQM process and as a first step in achieving the established water quality standards, the State must classify segments of its waters as either "water quality limited" or "effluent limited". To make this classification, the State generally employs mathematical modeling of the river basin and notes

all point and non-point sources of wastes, low flows and other physical conditions. Using the assumptions that all point sources achieve at least secondary treatment, the model is able to predict whether the water quality standards are met. If the standards are met, the stream segment is classified as "effluent limited" and publicly owned treatment works (POTW's) need only achieve secondary treatment.

If the model of the basin predicts that water quality standards will not be met when all point sources achieve secondary treatment, the segment is classified as "water quality limited". The inputs to the model are varied with the result that waste load allocations are established for each discharge in this segment and represent the minimum of treatment to be achieved by any future publicly owned wastewater treatment works. With regard to projects receiving a construction grant, the reviewer ensures that the proposed project meets the State established waste load allocation for the segment of stream into which the project may discharge its effluent. This is distinct from the effluent limitations which may be imposed by the State agency for other alternative discharges (land application, groundwater recharge, industrial reuse for example).

It should be noted that in establishing waste load allocations for publicly owned treatment works no direct controls are exercised to limit the non-point sources. Non-point source control is addressed in appropriate water quality management plans.

Re: 40 CFR Part 35 Subpart G

4. Water Quality Management Plans

Regulations published after the passage of PL 92-500 (40 CFR Parts 130 and 131) made a distinction between Basin Plans and Areawide Waste Treatment Management Plans (the latter more commonly referred to as 208 Plans). As program experience was obtained it became clear that the planning efforts were not distinct and should be more closely coordinated and integrated. On May 23, 1979 EPA published Subpart G to 40 CFR Part 35 entitled "Grants for Water Quality Planning, Management, and Implementation". Subpart G replaces entirely the earlier 40 CFR Parts 130 and 131.

Section 208 of the CWA provides for the Governor of a State to designate a region for areawide waste treatment management planning. In general, the designated regions have substantial water quality control problems caused by urban-industrial concentration or other factors. The stream segments in these areas (generally water quality limited) require comprehensive areawide planning to meet water quality standards. Planning considerations not only include limitations on municipal and industrial point sources but also address land use policies to control non-point sources, storm-water discharges, water supply and other limiting factors which may be controlled to achieve water quality standards. The 208 planning is broad based and geared toward the more complex cases. EPA is authorized to provide grants to agencies having jurisdiction under State law to carry out such planning.

In non-designated areas the State agency is responsible to conduct water quality management planning to the extent necessary for the water quality problem.

In both designated and non-designated areas the responsible planning agency will conduct a water quality assessment and develop a WQM work program. The State Agency will utilize the individual work programs as well as its own to develop a State strategy. The State strategy document will address items such as funding, resources, priorities, etc. and is submitted annually to the Regional Administrator of EPA for approval and eventual funding. The final output from these planning activities is a water quality management plan.

The construction grant project reviewer is concerned with WQM planning as it relates to a specific project under review. In designated 208 planning areas the applicant for a construction grant must be the agency identified in the approved WQM plan. Also, population forecasts used in facilities planning must agree, with few exceptions, to those contained in the approved WQM plan. It is of utmost importance that the construction grant project reviewer and the grantee coordinate their activities with the appropriate WQM planning agency.

EPA policy concerning coordination between applicants and (208) planning agencies is explained in "Guidance for Preparing a Facility Plan" (MCD-46).

Re: 40 CFR Part 35 Subpart G
40 CFR Part 35 Subpart E, 35.925-2 and Appendix A
PRM 75-38

5. Facilities Plans

Facilities plans are required by Section 201 of the CWA. They may be considered as the implementation part of the States Continuing Planning Process. Facilities plans are the first stage of the three part construction grant process. The facilities planning area is designated by the State agency and may include one or more political jurisdictions. Overlapping may exist between (208) areawide planning areas and 201 facilities planning areas. Coordination and cooperation are essential to avoid duplication, but the completion of facilities plans should not be delayed or postponed pending completion of WQM plans. Rather, the WQM plans, when completed, should incorporate the provisions of the completed facilities plans.

Ideally, the WQM plan establishes the waste load allocations, and designates the facilities planning areas and the implementing agencies. The facilities plan develops a specific project which is the most environmentally sound and cost-effective for achieving the stated water quality standards. In the case of non-designated areas, the State agency will establish the boundaries of the facility planning area, subject to the approval of EPA. After September 30, 1979, the project must be based on waste load allocations from the approved WQM plan, unless a deviation is granted.

Facilities planning is discussed in greater detail in Chapter IV and is the subject of the publication: Guidance for Preparing a Facility Plan.

Re: 40 CFR 35.917

6. Municipal Permits

The Clean Water Act establishes the National Pollution Discharge Elimination System (NPDES) as the enforcement mechanism for achieving water quality standards. The discharge permit issued under the system is applicable to all municipal and industrial discharges. Where WQM plans under Sections 208 or 303(e) or facilities plans under Section 201 have been established, the permits will require compliance with such plans. In the case of existing sewage treatment facilities which, because of present or

anticipated future inadequate treatment, will not achieve the water quality standards, the NPDES permit may contain limitations, conditions or schedules which will prompt the municipality to apply for a construction grant. The State agency will designate the boundaries (if not previously designated) of the facilities planning area and the construction grant process will begin. An applicant for a construction grant must comply, at a minimum, with applicable existing permits. The coordination of grants process and the NPDES permit issuance process is vital. Policy and procedures to achieve this coordination are set forth in "the National Municipal Policy and Strategy" (October 1979).

Re: 40 CFR Part 125
40 CFR 35.925-6

7. Reviews of Advanced Treatment Projects

Current EPA policy requires a rigorous review of projects designed for treatment more stringent than secondary. The incremental, additional capital costs of a project, which are attributable to effluent limitations or water quality requirements more stringent than secondary, must be based on a justification showing significant receiving water quality improvement and mitigation of public health problems where they exist. Furthermore, projects requiring treatment more stringent than secondary should be evaluated for their financial impact on the community. Under this policy, the Regions have primary responsibility for reviewing such projects, and will decide how to proceed in accordance with PRM 79-7. In general, where projects have incremental costs beyond secondary of $1 million or less, the Region retains the decision-making authority. Where incremental costs exceed $1 million, approval must be given by EPA Headquarters. Specific procedures to be followed in the review of applicable projects are identified in PRM 79-7.

B. STATE PLANNING AND IMPLEMENTATION PROGRAMS

1. State/EPA Agreement

After fiscal year 1979, the State/EPA agreement (SEA) provides the basis for the planning and implementation programs under CWA as well as under other EPA legislation including the Resource Conservation and Recovery Act and Safe Drinking Water Act. Each year the Regions and States negotiate SEA's which identify the States' environmental problems, objectives and priorities and describes coordination and integration among the covered programs. It includes the annual work programs of the covered programs, a summary of the major work elements, and, by reference, the State's strategies. It focuses the attention of top EPA and State managers on the major expected accomplishments and establishes the responsibilities of each necessary to achieve those accomplishments. Grants for FY 1980 under Section 106, 205(g) and 208 cannot be awarded until the 1980 SEA is executed.

2. State Strategy

The State strategy, which is incorporated into the SEA by reference, includes:

a. goals for a five-year period and estimated costs of activities to control priority water quality problems;

b. an identification of governmental entities expected to be responsible for conducting the activities; and

c. a summary of anticipated Federal and other funds for the strategy period.

Contained within these three items and of particular concern to the construction grants reviewer is the State project priority list. It is from this list that projects are certified by the State for funding and the construction grants process begins.

Re: 40 CFR 35.915(c), (e), 1503, 1509-1, -2, 1511-2

3. State Priority System and Priority List

As a part of its program stragegy, the State must prepare a needs inventory which ranks all of the significant municipal discharges within the State. This inventory must consider the construction grants needs and priorities set forth in certified and approved State and areawide water quality management (WQM) plans.

The State priority system describes the methodology used to rate and rank projects considered eligible for grant assistance. It also sets forth the administrative, management and public participation procedures required to develop and revise State project priority list.

The project priority list is a ranked listing of projects for which Federal assistance is expected during the five year planning period starting at the beginning of the next fiscal year.

The State priority system is based upon the following criteria:

a. the severity of the pollution problem;

b. the existing population affected;

c. the need for preservation of high quality waters;

d. at the State's option, the specific category of need that is addressed.

- The State has the sole authority to determine the priority for each category of need. These categories comprise mutually exclusive classes of facilities which were identified in the needs survey prepared under Section 516(b) of the CWA and include:

Category I:	secondary treatment
Category II:	more stringent treatment
Category IIIA:	infiltration/inflow correction
Category IIIB:	sewer system replacement or major rehabilitation
Category IVA:	new collectors and appurtenances

Category IVB:	new interceptors and appurtenances
Category V:	correction of combined sewer overflows.

e. Step 2, Step 3, and Step 2 + 3 projects utilizing processes and techniques meeting innovative and alternative guidelines in Appendix E, 40 CFR part 35, may receive higher priority. Also 100% grants for projects that modify or replace malfunctioning treatment works constructed with an 85% grant may receive a higher priority;

f. other criteria, consistent with these, may be considered (including the special needs of small and rural communities). The State may not consider: the project area's development needs not related to pollution abatement, the geographical region within the State, or future population growth projections; and

g. in addition to the criteria listed above, the State must consider the treatment works and step sequence; the allotment deadline; total funds available; and other management criteria.

The project priority list is developed by applying the priority system to projects included in the needs survey prepared under Section 516(b) of the CWA. In addition, the State must consider construction grants needs and priorities set forth in certified State and areawide water quality management plans.

While the project priority list must be developed in accordance with the criteria listed above, the criteria are not to be construed as removing all flexibility in the establishment of the list. For example, large city projects should be precluded from using all, or almost all, of a State's allocation. This may be accomplished by: 1) the State reserving funds for projects of smaller communities (as defined by the State and approved by the Regional Office), or 2) by dividing the work into several segments or smaller projects. (This could be two lists.) In the latter case, both the State and the applicant must recognize that:

a. all grants must be awarded at the 75% level except in the case of projects meeting the innovative or alternative technology criteria or 100% grant funded projects

that modify or replace malfunctioning treatment works constructed with and 85% grant;

b. the project must be comprised of a discrete and meaningful segment of the treatment system;

c. the awarding of the grant does not bind EPA to fund the remaining parts of the treatment system; and

d. the acceptance of the grant commits the grantee to the completion of both an operable treatment works and the complete sewage treatment system of which the assisted project is a part.

The project priority list must reflect the funding cutoff. The fundable portion will include those projects planned for grant award during the first year of the five year period. The total grant awards on the fundable portion may not exceed the total funds expected to be available during the year less all applicable reserves (see 4 "Funding" below). The remaining portion will include all projects outside the fundable portion that may, under anticipated allotment levels, receive funding during the five year period.

The format for and project information required on the project priority list is contained in the regulations (40 CFR 35.915(c)(2)) and annual guidance issued by the Administrator. The annual guidance also outlines the funding assumptions and other criteria useful in developing the five year priority list.

In reviewing the State priority list, it is necessary to insure that:

a. the information in 40 CFR 35.915(c)(2) is included for each project;

b. the grant funds involved equal or do not exceed the State allotments available;

c. known problem areas in the State have been properly considered;

d. target application dates and cost estimates appear to be reasonable; and

e. previously approved Step 1 and Step 2 projects are properly reflected and realistically scheduled for funding.

The State's priority list is submitted annually as part of the State's program strategy. The list is not accepted by the Regional Administrator unless it has been the subject of a public hearing. During the year, certain amendments may have to be made to the list. These amendments do not require a public hearing if the Regional Administrator does not consider them significant.

Re: 40 CFR 35.915,.930-4, .935-1, .960
40 CFR 35.1509-2
PRM 75-14, PRM 75-24,
PRM 77-1, PRM 79-6

4. Funding

a. General:

Under the CWA, authorization for funding construction grants projects are provided over a five year period. However, such funds only become available if and when Congress appropriates them. Generally, each fiscal year, Congress appropriates an amount equal to or less than the amount authorized. EPA, in turn, allots these appropriated funds to the States in accordance with the Congressionally mandated formula (generally based upon need and population). Allotments are available to the States for two fiscal years after which time the unobligated funds in each State are pooled together and reallotted to those States which utilized all their funds.

b. Reserves:

In developing the fundable portion of the priority list, the State must set aside several reserves. Some reserves are required by law; others are optional. For example:

(1) Reserve for innovative and alternative technology. Each State has to set aide from its annual allotment a specific amount which is to be used to increase the Federal share from 75 percent to 85 percent for those eligible portions of a project

meeting the innovative or alternative technology criteria. The set-aside is 2 percent of the State's annual allotment for FY 1979 and 1980 and 3 percent for FY 1981. Of this amount not less than one half of one percent is to be used for innovative projects. The increased Federal share (from 75 to 85 percent) is applicable only to Step 2, Step 3 or Step 2 + 3 projects (not Step 1). Reserves not obligated during the initial allotment period will be removed from the State and reallotted to States which did obligate their full annual allotment.

(2) Reserve for grant increases. Each State must set aside not less than 5 percent of its annual allotment for grant increases to cover cost overruns or to fund the development of municipal pretreatment programs.

(3) Reserve for Step 1 and Step 2 projects. Each State has the option of reserving funds for Step 1 and Step 2 projects which may be approved for funding by the State after the approval of its project priority list. The reserve may be up to 10 percent of the State's annual allotment.

(4) Reserve for alternative systems for small communities.

(a) Each State with a rural population of 25 percent or more must set aside 4 percent of its annual allotment to fund alternatives to conventional treatment works for small communities.

(b) For non-rural States the Regional Administrator, at the request of the Governor, may authorize a reserve of up to 4 percent to be used for funding alternatives to conventional treatment works for small communities (3,500 or less or dispersed sections of larger municipalities).

NOTE: If funds placed in reserves under (2), (3), or (4)(b) are not obligated prior to the end of the initial allotment period, they can be used to fund other projects on the priority list to avoid being subject to reallotment.

(5) Reserve for State management assistance grants under Section 205(g) of the Act. Where an agreement between the Regional Administrator and a State is entered into under which the day-to-day operation of the Construction Grant Program is delegated to that State, on a function-by-function basis, a Construction Management Assistance (CMA) Grant may be awarded to the State to cover the State's costs in carrying out the functions delegated under the agreement. To fund a CMA grant, the State must reserve from its allotment an amount not to exceed 2 percent of each year's allotment or $400,000 whichever is greater.

c. Optional Use Other Than Reserves:

Each State may use 25 percent of its annual allotment to fund certain categories of projects. These categories include:

- sewer system replacement or major rehabilitation

- new collectors, new interceptors and appurtenances

- correction of combined sewer overflows

All projects proposed to be funded which would exceed this 25 percent limitation will be reviewed by the Regional Administrator to determine whether or not the proposed project meets the enforceable requirements of the Act.

Re: 40 CFR 35.904, .910-2(b), .915(g), .915-1, .930-4, .935-1, .935-11
PRM 79-6

5. State Delegation

Delegation to the State agencies of various review functions of the construction grants program is intended to eliminate duplication of effort, improve program efficiency and speed its processing of grants. Regulations issued under PL 92-500 encouraged the Regional Administrators to enter into written agreements with the

State agencies whereby the State would certify the technical or administrative adequacy of specifically required documents. Accordingly, agreements have existed between specific States and Regions permitting State agency certification of plans and specifications, O&M Manuals and other documents under the construction grants program.

Section 205(g) of PL 95-217 extended this concept considerably by providing for the State to assume responsibility for conducting a full range of construction grant activities, and for funds needed to effectively administer the delegated program. Section 205(g) delegation agreements can be entered into between the Region and State after the Regional Administrator is assured that the State can and will administer the full gamut of Construction Grant Program activities in accordance with EPA requirements. Functions delegated under the agreement are "phased-in"--i.e., the agreements prescribe their sequence and timing. Generally grant application and award procedural type functions and Step 2 activities are delegated initially while the review and approval of facility plans (because of their complexity) and construction inspections (because, on an interim basis, this activity can be conducted by the Corps of Engineers under an interagency agreement with EPA--see 6 below) are deferred until later. During the "phase-in" period extensive training of State personnel is conducted by experienced Regional and State staffs and the State's grant certification procedures are closely monitored by the Region.

Where delegation agreements exist, the reviewer must become familiar with the terms of the agreement and know which functions and activities are delegated, which are not, and the mechanisms for coordination in order that State-EPA duplication is eliminated and a unified effort is maintained. In addition, reviewers must know the review and approval procedures to be followed by the State, the scope, depth, and frequency of Regional Office monitoring activities, and the specific actions to be taken when inadequate performance is found.

By law, certain functions of EPA may <u>not</u> be delegated. Hence, under delegation agreements, EPA must continue to perform or provide final certification of the following:

a. award of grants or amendments

b. National Environmental Policy Act (NEPA) reviews, decision and preparation of Environmental Impact Statements if necessary

c. decisions and enforcement of Civil Rights, minority business business enterprise (MBE) participation, Equal Employment Opportunities and other Federal requirement related to discrimination

d. dispute determinations concerning project eligibility

e. determinations of protests under A/E or construction contract procurements

f. resolution of construction grant audit exceptions

g. determination that an overriding Federal interest exists in a particular project which requires greater Federal oversight or participation

h. final determinations under Federal statutes other than the CWA.

The ultimate purpose of the State delegation program is to develop a self-sustaining Federal construction grant program at the State level. Hence, training and monitoring activities must be carried out so that this goal can be achieved.

Re: 40 CFR 35.912, .960(a), Subpart F
POM 78-5

6. U.S. Army Corps of Engineers

In January, 1977 EPA entered into an interagency agreement with the U.S. Army Corps of Engineers under which the Corps would provide assistance to EPA primarily in administering the Step 3 aspects of the Construction Grants Program. The specific functions to be carried out by the Corps are provided for in each of the ten separately developed regional agreements between the Regional Office and the geographically adjacent Division Office of the Corps. Corps responsibilities and procedures for dealing with grantee projects and project documents vary from Region to Region and State

to State. However, in general, in the case of new Step 3 projects, the Corps is responsible for project management from grant offer acceptance to project close-out (with certain exceptions, i.e., making payments, UC/ICR system approvals, final resolution of audit exceptions, etc.). Corps activities on Step 3 projects which were well under construction prior to the Corps agreement will vary from interim inspections to full project management.

In addition, the Corps conducts biddability and constructibility reviews on plans and specifications on all Step 2 projects in nearly every State prior to their approval; and, on very large projects, or clusters of projects in a metropolitan area, with construction costs totaling about $50 million or more, the Corps provides full time on site presence--i.e., continuous inspection.

Fundamental to all agreements is that functions which are delegated to a State will not be performed by the Corps. However, where temporary shortages in staff resources exist in a delegated State, that State may request (of EPA) Corps assistance in carrying out interagency agreement assignments for interim periods. Again, such activities must be carefully documented in Regional agreements so that all necessary requirements are fulfilled and maximum efficiency is achieved in moving grantee projects to a successful operation.

CHAPTER III

PREAPPLICATION INFORMATION

A. GENERAL

B. APPLICANT ELIGIBILITY

C. PREAPPLICATION CONFERENCE

A. GENERAL

An applicant is often unfamiliar with the requirements and/or limitations of the construction grants program. Lack of knowledge of all key aspects of the grants program can be costly and time-consuming for the applicant, the State and EPA. The State, in conjunction with the Region, should insure that applications being submitted are responsive to all technical, administrative and legal requirements of the program.

Guidance to applicants is presently provided through a variety of sources, including State and Federal forms, instruction booklets, EPA guidance publications, and copies of Federal regulations. However, this information is not always clear to applicants and emphasis is often incorrectly placed on less important matters. To avoid such occurrences, a preapplication conference between the applicant, the State and EPA to jointly review both program requirements and applicant needs, is strongly urged.

To assist applicants in understanding the program, EPA has prepared a booklet entitled, "How to Obtain Federal Grants to Build Municipal Wastewater Treatment Works" (MCD-04). This booklet should be provided to a prospective applicant with the grants application package and reviewed at the preapplication conference.

B. APPLICANT ELIGIBILITY

"Municipalities, intermunicipal agencies, States, or interstate agencies are eligible for grant assistance." The regulations also provide a more detailed description of an eligible applicant under definition of a "Municipality" which reads in part:

> "Municipality. A city, town, borough, county, parish, district, association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created under State law, or an Indian tribe or an authorized Indian tribal organization, having jurisdiction over disposal of sewage, industrial wastes, or other waste, or a designated and approved management agency under section 208 of the Act."

In essence, an eligible applicant must satisfy a three part test. The applicant must:

1. have as one of its principal responsibilities the treatment, transport or disposal of liquid wastes of the general public in a particular geographic area;

2. have the legal authority to subsequently construct and manage the proposed facility; and

3. be the designated agency identified in an approved Water Quality Management plan authorized under Section 208 of the Act (where applicable).

Notably excluded from eligibility are revenue producing entities and special districts (such as school or park districts) not having as one of their principal responsibilities the treatment, transport or disposal of liquid wastes. Under the CWA, the treatment of water for human consumption is considered an industrial undertaking and whether publicly or privately owned, it is in the same category as any other industrial service (power plants, airports, mass transportation) and not eligible for a construction grant.

Grant assistance may be provided small wastewater (individual) systems where such systems are more cost effective than centralized systems, and where public ownership is proven not feasible. However, the applicant must be a municipality.

Re: 40 CFR 35.920-1, .905, .917-3(a), .925-2, .925-5
PRM 75-17, PRM 75-18, PRM 77-1, PRM 79-8

C. PREAPPLICATION CONFERENCE

The regulations encourage preapplication assistance, including a preapplication conference for each project on the State's priority list. The importance of the preapplication conference cannot be overly stressed. A meeting where the applicant, the State and the Region sit down together to discuss the approaching work has the potential of setting the stage for a well coordinated work program which is void of major misunderstandings and time delays.

The preapplication conferences may be with one applicant or a group of applicants and will generally involve only those applicants included on the State project priority list.

While the entire three step grant process should be discussed at the preapplication conference, the primary emphasis should be on the administrative and technical requirements of a Step 1 project grant application and the preparation of the facility plan. Applicant conferences throughout the three step grant processing procedures are encouraged, with emphasis to be placed on specific aspects of the program at the appropriate time.

The Regions should develop outlines of points to be covered in the preapplication conferences which may be tailored to the individual State's and applicant's needs and capabilities. Several important matters which should be discussed in the conference are as follows:

Re: 40 CFR 35.920-2

1. Important Dates

October 18, 1972 - Passage of PL 92-500. No award may be made for a new sewage collection system in a community unless the bulk of the design flow (generally two-thirds) is attributable to that part of the community in existence as of October 18, 1972.

Re: 40 CFR 35.925-13

June 30, 1975 - After this date the applicant must not initiate work until a Step 1 grant has been awarded, or unless a plan of study has been approved and is accompanied by a request from the State agency to reserve funds for a Step 1 project.

Costs incurred for project planning prior to this date may or may not be eligible for grant assistance depending on the specific date and nature of the work conducted. The regulations set forth limitations.

Re: 40 CFR 35.925-18

December 27, 1977 - Passage of PL 95-217. Costs for privately owned treatment works, serving one or more principal residences or small commercial establishments inhabited or used prior to this date, are grant eligible.

Re: 40 CFR 35.91801(a)

September 30, 1978 - Facilities planning begun after this date, whether or not prepared under a Step 1 grant, requires analysis of innovative and alternative treatment processes and technologies, primary energy requirements, and potential opportunities for recreation, open space and access to bodies of water.

Re: 40 CFR 35.917-1(d) (8), (9), .917-1(j)

February 1, 1979 - Procurement of subagreements initiated on or after this date must be in compliance with the minority business enterprise (MBE) policy of EPA.

Re: 43 FR 248 pp. 60220-60224

February 16, 1979 - Public participation program requirements must be met in the development of : the State priority system and annual fundable project list, plans for wastewater treatment facilities, UC/ICR systems, and State delegation on or after this date.

Re: 40 CFR Part 25
44 FR 34 pp. 10300-10304

October 1, 1979 - After this date, in order to be grant eligible, facility planning must be based on information in approved Water Quality Management plans (unless excepted).

Re: 40 CFR 35.917(e)

June 30, 1980 - After this date pretreatment requirements must be met where applicable to Step 2 grant assistance.

Re: 40 CFR 35.907, .920-3(b) (9)

December 31, 1980 - After this date pretreatment requirements must be met where applicable to Step 3 grant assistance.

Re: 40 CFR 35.907, .920-3(c) (4)

2. Contracts, for Personal and Professional Services

It is EPA's policy to ensure that procurement of subagreements is conducted in a manner which provides free and open competition, and is negotiated on the basis of demonstrated competence and qualifications with a fair and reasonable price.

In the procurement of subagreements, the procedures detailed in the regulations must be followed (a copy of the regulations should be provided to the applicant). The applicabilities of specific clauses of the regulations are outlined in Figure III-1. Procurement initiated on or after February 1, 1979 must be in compliance with the goal oriented policies and procedures regarding minority business enterprises (MBE) set forth in 43 FR 248, which outlines responsibilities of EPA, grantees, consulting firms, prime contractors, and MBEs.

It is the intent of the agency that simple, clearcut contracts which leave no room for future disagreement, be negotiated. These contracts should be such that the engineer receives a fair price with a reasonable profit for his work, and the municipality receives competent, complete professional services at a fair cost. Cost reimbursement or fixed price contracts, or combinations thereof, may be negotiated for architectural or engineering services. Per diem may be used where no other types are applicable. Specifically prohibited are cost-plus-percentage-of-cost and percentage-of-construction cost contracts which penalize the engineer for designing the most economical facility. All contracts should clearly establish a maximum price which may not be exceeded without formally amending the contract.

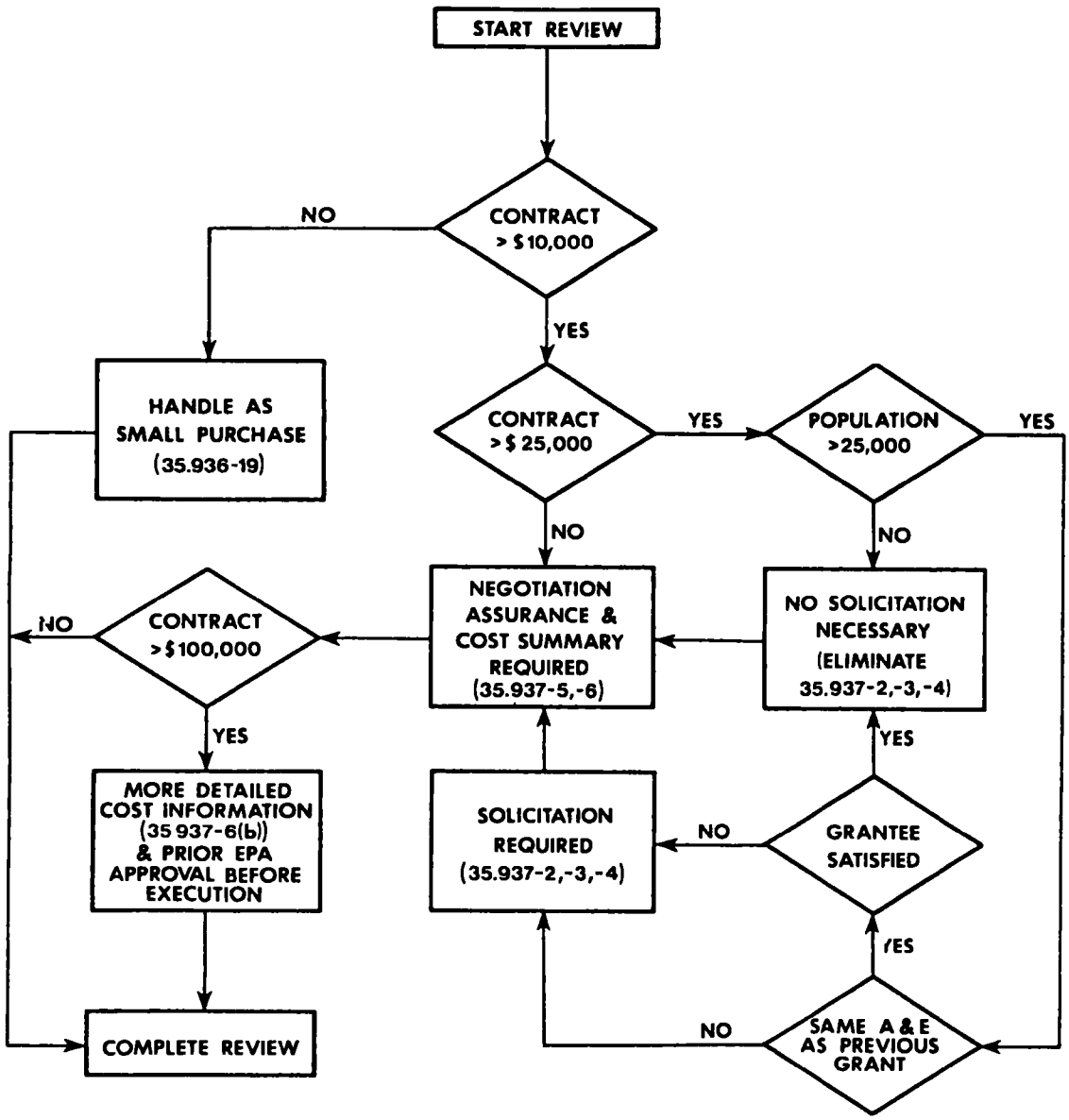
The employment of any contract arrangement requires a careful analysis of the scope of the work to be performed and a detailed estimate by the engineer of his costs for performing the work. This procedure should assure a clear understanding of exactly what is to be done, by whom, and should produce a better end product. Should the scope of work change during the performance of the project, the contract would be open for amendment.

Re: 40 CFR 35.936, .937, .939
Appendix C-1, D
43 FR 248 pp. 60330-60224

3. Administrative Requirements

The administrative requirements to be fulfilled by the applicant are extensive. All necessary forms, authorizations, timing requirements, and legal requirements should be discussed. The application form (5700-32) should be reviewed line by line. In addition,

Figure III-1. Review of A & E Contracts



recommended formats for submittal of technical data should be reviewed. Payment procedures and policy should be fully explained. Finally, the entire application procedure for Step 1, 2, 3, and Step 2 + 3 projects should be discussed. Special emphasis should be placed upon the coordination required between the applicant, the State and EPA to insure accuracy and timeliness in processing grant applications. Specific points to be covered include:

a. prior allowable costs, if any, must be claimed in the initial application for grant assistance

   Re: 40 CFR 35.925-18, .940

b. project work may be accomplished by force account (municipal or public service employees) with prior approval of the project officer if the applicant can demonstrate that:

   (1) he possesses the necessary competence to accomplish the work

   (2) either the work can be accomplished more economically by the use of the force account method, or emergency circumstances dictate its use.

   Re: 40 CFR 35.936-14

c. the institutional arrangements and agreements between jurisdictions

   Re: CFR 35.917-2(a) (3), .917-6

d. payment of non-federal share of project costs

   Re: 40 CFR 35.925-5, PRM 79

e. priority lists

   Re: 40 CFR 35.915, .925-3
   PRM 79-6

f. the procurement of professional services and contracts

   Re: 40 CFR 35.936, .937, .938, .939, 965 and Appendices C & D

g. record keeping

   Re: 40 CFR 30.800, .805

h. limitations on collection systems

Re: 40 CFR 35.925-13, .905
PRM 78-9

i. user charges and industrial cost recovery

Re: 40 CFR 35.925-11, .928, .929

j. public participation

Re: 40 CFR 35.917-5, 40 CFR Part 25

k. initiation of property acquisition, where applicable

Re: 40 CFR 35.940-3, PRM ____

l. compliance with the requirements of the Civil Rights Act of 1964, including applicability to sewage collection systems for minority areas, and MBE policy.

Re: 40 CFR 7, 8, 12
43 FR 248 pp. 60220-60224
PRM 75-32

m. small wastewater systems

Re: 40 CFR 35.918
PRM 79-8

n. coordination of grant funding with other federal agencies (FmHA, EDA, HUD, CSA)

Re: PRM 79-8

o. OMB A-95 review procedures (clearinghouses)

Re: 40 CFR 30.305

p. allowable and unallowable costs

Re: 40 CFR 35.940

q. other Federal requirements

Re: 40 CFR Part 30, Subpart C

4. Technical Requirements

All technical aspects of the Step 1, 2, 3, and 2 + 3 work should be reviewed with the applicant with special attention to the requirements for a plan of study and the preparation of a facility plan. At a minimum, the following items should be discussed:

a. the degree of technical detail required in both the plan of study and the facility plan

   Re: 40 CFR 35.920-3, .917
   Guidance for Preparing a Facility Plan (MCD-46)
   Model Plan of Study (MCD-24)

b. specific problems associated with the project in question and how they should be addressed in item "a".

c. cost effectiveness in its broadest sense and the trade-off between engineering, environmental, monetary costs, and institutional arrangements

   Re: 40 CFR 35.917-1(d), Appendix A, Guidance for Preparing a Facility Plan (MCD-46)

d. infiltration/inflow analysis, sewer system evaluation survey

   Re: Handbook for Sewer System Evaluation and Rehabilitation (MCD-19)
   40 CFR 35.927
   PRM 78-10

e. environmental information document integration in the facility plan and possible environmental impact statement proceedings (including "piggy-backing" option), with emphasis on secondary impacts

   Re: 40 CFR Part 6 (Subpart E) 35.917-1(d) (7), .925-8
   Guidance for Preparing a Facility Plan (MCD-46)
   Environmental Assessment of Construction Grants Projects (FRD-5)
   PRM 75-26
   PRM 75-31

f. pretreatment and treatment of incompatible pollutants

   Re: 40 CFR 35.907, .925-15, 1935-19, 40 CFR Part 403

g. BPWTT, including secondary treatment and waste stabilization ponds, land application, wastewater reuse. (AWT or AST projects must undergo stringent review, see Chapter IV, I.3.)

Re: Alternative Waste Management Techniques for Best Practicable Waste Treatment, Evaluation of Land Application Systems
40 CFR 35.917-1(d) (4), (5)

h. innovative and alternative analysis

Re: 40 CFR 35.908, .917-1(d) (8), Appendix E, I&A Technology Assessment Manual (MCD-53)

i. other Federal requirements, such as historical preservation, archeological investigations, floodplain management and wetlands protection, prime agricultural land, flood insurance, etc.

Re: 40 CFR Part 6 Subpart C, Part 30, Subpart C.
EO 11988, 11990
PRM 75-27, PRM 76-5

j. coordination with WQM agencies

Re: 40 CFR 35.917(e), .917-7
PRM 75-38

k. multi-purpose projects

Re: PRM 77-4

l. recreation and open space

Re: 40 CFR 35.917-1(j)

CHAPTER IV

STEP 1 GRANT PROCESSING

A. INTRODUCTION

B. SCHEMATIC FLOW DIAGRAM

C. APPLICATION CONTENTS

D. PLAN OF STUDY REVIEW

E. ADMINISTRATIVE REVIEW

F. GRANT AWARD PROCEDURES

G. PREPARATION OF THE FACILITY PLAN

H. FACILITY PLAN (ADMINISTRATIVE REVIEW)

I. FACILITY PLAN REVIEW

A. INTRODUCTION

This chapter describes the contents of, and review procedures for processing a Step 1 project grant application. It begins with the receipt of the application package and concludes with the review and approval of the facility plan.

Section B, Schematic Flow Diagram, visually places this chapter in the proper sequence and indicates its relationship to previous chapters.

Section C, Application Contents, provides a quick ready listing of the materials which are contained in an application package.

Section D, Plan of Study Review, is given individual attention because it is the major technical requirement of the application and includes discussions prepared by the applicant. This section includes a discussion of Water Quality Management (WQM) plans as they relate to the plan of study. Costs incurred before filing the application are also discussed.

Section E, Administrative Review, describes the procedures involved in reviewing clearinghouse comments, priority list compliance and certification, application form, and contracts and subagreements.

Section F, Grant Award Procedures, describes the action required on the part of EPA in making the grant offer.

Section G, Facility Plan Preparation, describes responsibilities during preparation of the facility plan.

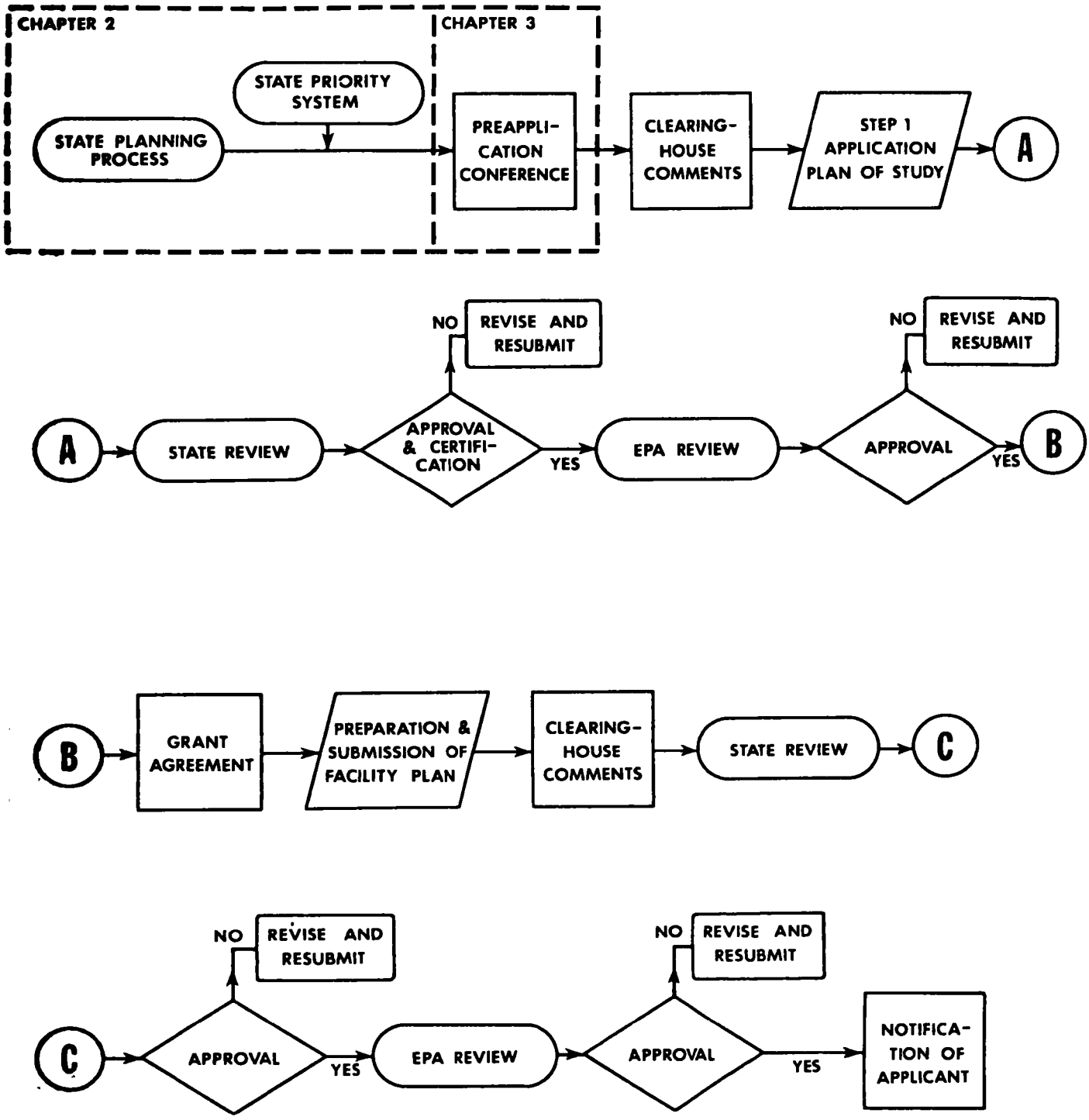
Section H, Facility Plan (Administrative Review), describes the procedures for approaching the evaluation of the facility plan, the review of clearinghouse comments and State approval.

Section I, Facility Plan Review, describes the review of the facility plan according to the contents required by regulation and in the format recommended by the guidance.

The technical and administrative reviews are to be performed concurrently whenever possible. When items are missing or explanations are necessary, the review is to proceed as far as possible to insure quick action once the deficiencies are corrected.

B. SCHEMATIC FLOW DIAGRAM (Figure IV-1).

The flow diagram below visually places this chapter in the proper sequence and indicates its relationship to other chapters. The diagram includes the general functions of the Step 1 project process as performed by the applicant, State and EPA.



C. APPLICATION CONTENTS

Below are listed the basic materials to be included in an application package. The items are listed here for quick reference, while the review procedures for each item are described later. Initially, the reviewer is to make a cursory review of the package to insure that all items are included, that all applicable portions of the forms are completed and that the documents are signed by the appropriate officials. If items are missing or explanations are necessary, the applicant is to be informed through the State but the review is to proceed as far as possible to insure quick action once the corrections are made.

1. Plan of Study

2. Comments of State, local and Federal agencies including Clearinghouses (A-95 process)

3. State Priority Certifications, EPA Form 5700-28 (furnished by State)

4. Application, EPA Form 5700-32, including authorizing resolution

5. Proposed subagreements (generally A&E contracts) or explanation of method of awarding proposed subagreements, including evidence of compliance with MBE policy

Re: 40 CFR 35.920-2(b), .920-3(a)
40 CFR 30.305, .315

D. REVIEW OF THE PLAN OF STUDY (POS)

1. Contents

Purpose:

A plan of study is submitted by the applicant to show his understanding of the work to be done in preparing a facility plan. The plan must include the key issues to be addressed, a time schedule, and itemized costs for the completion of the specific tasks.

Discussion:

The plan of study is the first element of grant request to be submitted by the applicant. It concisely describes the scope, schedule, and costs of the proposed facility plan. It must be critically reviewed to insure that all statutory requirements are met and that the project begins on the proper course.

While the plan of study should be brief and generally follow the format suggested in the Guidance for Preparing a Facility Plan in terms of subject matter to be included, it should also address unique features of the project which will require special attention. Such unique features might include water-short areas, recreational areas, historical and archeological sites, and economically depressed areas.

The plan of study should also include the design effluent limitations for the proposed project. To avoid long replanning or design delays which might otherwise result from effluent limitations changes, limitations requiring treatment greater than secondary should be reviewed in accordance with PRM 79-7.

The plan of study must be submitted to the appropriate A-95 clearinghouse for review prior to formal submission to the State and EPA as part of the Step 1 grant application. The plan of study must be reviewed by all agencies to insure consistency with previously approved wastewater management plans, interstate agreements, and other state, areawide, or local plans which are applicable.

The plan of study, once approved and incorporated into the grant agreement, is to include a time schedule for the completion of specific tasks, and itemized costs for each of these tasks. This schedule of tasks and accompanying costs are used to develop a payment schedule, which in turn is used in preparing projections of cash disbursements. Once the grant payment schedule has been established, the grantee may submit requests for payment of work that has been completed, in accordance with the grant payment schedule.

Review Procedures:

In reviewing the plan of study, attention must be focused on those items which are required by regulations as well as those which will need to be developed in the facility plan. The plan should indicate that the statutory requirements described in later chapters of this Handbook will be satisfied and that the applicant understands them and will be able to proceed in a manner which will satisfy them.

Regulations require that the plan of study contain five items as follows:

"(i) The proposed planning area;

(ii) An identification of the entity or entities that will be conducting the planning;

(iii) The nature and scope of the proposed Step 1 project and public participation program, including a schedule for the completion of specific tasks;

(iv) An itemized description of the estimated costs for the project; and

(v) Any significant public comments received."

Additional items which should be included in the plan of study are suggested in Guidance for Preparing a Facility Plan and Model Plan of Study. These include maps detailing the study area's political boundaries, surface water resources, and service areas of existing waste treatment systems; description of project need due to State or Federal enforcement orders, public health or water quality problems; and previously prepared documents and other data which will be used in developing the facility plan.

If, based on this review, the need for an Environmental Impact Statement (EIS) is apparent, the Regional Office may initiate the joint EIS/Assessment procedure ("piggybacking") outlined in PRM 75-31. The use of this procedure can result in considerable savings of time.

EPA must also determine the level of public participation to be required (exempt, basic, or full scale) for the proposed project.

Re: 40 CFR 35.920-3(a), PRM 75-31
Guidance for Preparing a Facility Plan (MCD-46)
Model Plan of Study (MCD-24)

2. Planning Considerations

Prior to awarding a grant, EPA must determine that the proposed POS is consistent with any applicable water quality management (WQM) plan approved under section 208 or 303(e) of the CWA and that the applicant is the wastewater management agency designated in an approved WQM plan. The reviewer must be familiar with the planning area and be aware of the status of applicable plans.

Facilities planning must be based on waste load allocations, delineation of facility planning areas, and total population projections and disaggregations in approved WQM Plans. After October 1, 1979 no grant assistance may be approved if such information is not available in an approved WQM plan. Notable exceptions are: (1) where facility related information was not within the WQM scope of work and (2) where award of grant is necessary to achieve water quality goals of the CWA.

Re: 40 CFR 35.917(3), 925.-2
Guidance for Preparing a Facility Plan (MCD-46)

3. Prior Costs

The application form requires the applicant to provide a breakdown of the costs for preparing a facility plan. The plan of study also requires a breakdown of these costs by specific task. These costs are to be reviewed to insure that they are allowable costs as defined in Chapter VII. This section is concerned only with the timing of when these costs were incurred.

If the costs to prepare the facility plan will be incurred after the grant award, no special review procedures are required.

Costs for the preparation of the application, plan of study and other supporting documents are not allowable for EPA grant assistance.

To ensure, where possible, that costs incurred are allowable, the regulations specify that "no grant assistance is authorized for Step 1 or Step 2 project work performed before award of a Step 1 or Step 2 grant." However, in conjunction with the first award of grant assistance, payment is authorized for preaward, allowable costs in the following special cases:

a. where Step 1 work was begun after the approval of the plan of study by the Regional Administrator, provided that the State has requested and the Regional Administrator has reserved funds for the Step 1 grant, and

provided that the grant is applied for and awarded within the allotment period of the reserved funds.

b. where Step 1 or 2 work was begun after October 31, 1974 but before June 30, 1975, in accordance with an approved plan of study or facilities plan respectively, provided that the grant is awarded before April 1, 1981.

c. where Step 1 or 2 work was begun prior to November 1, 1974, provided that the grant is awarded before April 1, 1980.

In all cases, the applicant must request grant assistance for prior costs in his first application.

Where prior costs are incurred, the applicant must submit a breakdown of these costs, identifying the dates the costs were incurred and the nature of the work which was performed.

Re: 40 CFR 35.920-3(a), .925-18(a),(c), .945(a)

E. ADMINISTRATIVE REVIEW

1. Clearinghouse Comments

Purpose:

Applicants for construction grants for wastewater treatment facilities are required to comply with the Office of Management and Budget (OMB) Project Notification and Review System (Circular A-95). This procedure is established to provide for the early contact between applicants and governmental agencies, and to insure coordination between related projects.

Discussion:

Prior to submission of a Step 1 project application, the applicant is required to submit a plan of study and related Step 1 application material to the State and/or regional clearinghouses for comment in accordance with OMB Circular A-95. A copy of the clearinghouse(s) comments is to be included with the application package.

The clearinghouse comments will indicate the degree of interest of other governmental agencies in the project. If these comments are adverse, the applicant is to submit a statement explaining how the comments were considered. If a clearinghouse recommends that the application be rejected but EPA approves it, the clearinghouse must be notified and given an explanation of the reasons for approval.

Review Procedures:

The reviewer must make particular note of any adverse clearinghouse comments. These comments may require further explanation from the applicant, State, or clearinghouse. More serious adverse comments may dictate that the application be returned to the applicant through the State agency.

The reviewer must determine if the comments warrant a special condition in the grant agreement (see section F below).

Re: 40 CFR 35.920-3(a)(3)
40 CFR 30.305
OMB Circular A-95

2. Priority List Compliance and Certification

Purpose:

The State agency is required to certify each project as entitled to priority for grant funds in accordance with the State priority system and the project priority list.

Discussion:

Only projects which have been certified by the State as entitled to priority for Federal assistance may receive a grant. Following EPA approval of the State priority system and acceptance of the project priority list, each project must be certified by the State as being entitled to priority for a grant over all other projects below it on the priority list (EPA Form 5700-28, see Appendix B). Refer to chapter II for a discussion of the State priority system and list.

A State may elect to set aside up to ten percent of its yearly allotment to fund Step 1 and Step 2 projects not on the current priority list. When such projects are certified, the certification must signify that the grant is to be made from that reserve allotment.

Review Procedures:

Review State Priority Certification to determine that:

a. the name, project number and description of the project agree with the application, form 5700-32, and the approved State priority list;

b. the form includes the signature of the authorized State official;

c. the award of grant assistance for the project will not exceed the State's allotment, including reallotments;

d. the award of grant assistance will not jeopardize the funding of any projects of higher priority;

e. the State has included a statement to the effect that all jurisdictions within the facility planning area have been notified of their inclusion in such planning.

Re: 40 CFR 35.915, .917-2(b), .920-2(b), .925-3, .925-4
PRM 75-14, PRM 75-16, PRM 75-24

3. Application Form

Purpose:

EPA Form 5700-32 is the formal application document and sets forth the information necessary to qualify for a construction grant. Additionally, the application contains "assurances" from the applicant which are necessary to satisfy statutory requirements.

Discussion:

The designation of a facility planning area is a State responsibility and should include that area deemed necessary to prepare an environmental assessment and to assure that the most cost-effective means of achieving the established water quality goals can be planned for and implemented. The applicant for the designated area may be a joint authority representing the multiple jurisdictions, one or more of the eligible jurisdictions or one lead agency representing all jurisdictions. In all cases, the applicant must have the legal authority to plan, design, finance, construct, operate and maintain any resulting wastewater treatment facilities.

The application form is used for an initial grant request, amendments, or supplemental grants. The form (see Appendix B) contains instructions for completion of each of the five parts. Part II, Section B requires information on the project site to be submitted with the application. Since a facility plan resulting from the award of a Step 1 project grant will conclude which is the most cost effective and environmentally sound project site, the information contained in this section is not necessary for a Step 1 project grant award.

The CWA requires that the applicant comply with related laws and regulations and give other assurances. These requirements are satisfied for a Step 1 project grant when the applicant signs the application and thereby assures and certifies that he will comply with the requirements.

The applicant must attach to the application a copy of the resolution authorizing the signer to act as the official representative of the applicant (Part V, item 1). Any subsequent changes in the authorized official must also be substantiated.

Review Procedures:

Review application form and determine that:

a. the name, project number and description of the project and amount of grant request agree with the State Priority Certification, Form 5700-28;

b. the form is signed by the authorized representative and a copy of the authorizing resolution is attached;

c. information regarding project location, entities involved and cost data corresponds to that in the plan of study;

d. all items in the application are complete or marked not applicable (NA);

e. Part V, assurances, is part of application. If not, a properly signed form must be obtained.

f. Part III, Section D, Proposed Method of Financing Non-Federal Share, insures that applicant can successfully fund his share of the project costs.

Re: 40 CFR 30.315
40 CFR 35.917-2, .917-3(a), .920-2, .925-5
PL 94-488
31 CFR Part 51, Department of Treasury

4. Contracts and Subagreements

Purpose:

Contracts or subagreements for personal or professional services are submitted by the applicant and reviewed by both the State and EPA to insure that the scope and nature of the proposed services are sufficient to result in an approvable facility plan and that the fees and schedules are reasonable.

Discussion:

The personal and professional services covered by the subagreements at the time of Step 1 application submission are generally the consulting engineering services, although separate agreements may also exist for environmental consultants, financial consultants, etc. The regulations state that the application shall include proposed subagreements or an explanation of the intended method of awarding subagreements for performance of any substantial portion of the project work.

The detailed requirements of, and procedures for, procuring personal or professional services appear in 40 CFR 35.936, .937 and Appendices C & D. Certain clauses of these regulations (e.g. access) are applicable to subagreements and lower tier subagreements in excess of $10,000. See Figure III-1, previous, for applicability of specific clauses. The goal oriented policies and procedures regarding MBE set forth in 43 FR 248 contain the responsibilities of EPA, Grantees, Consulting firms, Prime Contractors and MBEs.

Review Procedures:

Review the agreement(s) and determine that:

a. the grantee has complied with 40 CFR 35.936, .937, and (if applicable) .939;

b. the scope of work is sufficient to prepare an approvable facility plan;

c. completion schedules are reasonable and in agreement with the plan of study;

d. the applicant has complied with EPA's policy for increased use of minority business enterprises (MBE).

Re: 40 CFR 35.920-3(a)(2), .935-7, .936, .937, .939
Appendix C-1 & D
40 CFR 30.605
43 FR 248 pp. 60220-60224

F. GRANT AWARD PROCEDURES

The administrative procedures required in awarding a grant are summarized below. A detailed line-by-line explanation of the administrative steps necessary in preparing EPA forms and notifications is described in the Grants Administration Manual prepared by the Grants Administration Division, Office of Planning and Management, EPA.

Item 1 below describes the actions for which the Regional Office may establish procedures. Item 2 through 5 describe uniform actions prescribed by Headquarters.

1. Regionalized Procedures

a. Notification to financial management branch;

b. Preparation of transmittal letters to the applicant and State agency (include instructions for predesign conference, as appropriate);

c. Other regional procedures which have been worked out with the States, interstate agencies, etc.

2. Notification of Grant Award Action

The Notification of Grant Award Action, EPA Form 5700-1B, (see Appendix B) is completed and transmitted to Grants Information Branch, Headquarters, by Communicating Magnetic Card Selectric Typewriter on the date of award or no later than the following working day.

The Grant Information Branch immediately forwards a copy of the 5700-1B to the Office of Legislation which notifies appropriate congressional offices. The applicant is not to be notified of grant award until 5 working days after congressional notification.

EPA Form 5700-1D is used in the case of a decrease, declination, or withdrawal of a grant.

3. Grants Information and Control System (GICS)

The Grants Information and Control System (GICS) is a computer based management system in which information concerning the construction grants program is stored. This information is used for analyzing the grant program, manpower requirements, answering congressional inquiries and other purposes. The information must be current and available for quick retrieval.

Information concerning the award of each construction grant is entered into the system using prescribed coding sheets.

Re: Grants Information and Control System (GICS), WWT Construction Grants Information Data Base, Operators' Manual

4. Clearinghouse Notification

Purpose:

Notification of clearinghouse is made in order that the clearinghouse may inform interested agencies or other entities of the award of a grant in accordance with Treasury Department Circular No. 1082.

Procedures:

The notification, Standard Form 424 (see Appendix B), is completed by the regional office and copies are mailed to the State, regional and local clearinghouse.

Re: U.S. Treasury Department Circular No. 1082, Revised (1976)
40 CFR 30.305-4(c)

5. Grant Agreement/Amendment

Purpose:

The Grant Agreement/Amendment (EPA Form 5700-20) serves as a formal document of agreement between the U.S. Government and the grantee, and constitutes a legally binding contract once executed.

Procedures:

EPA Form 5700-20 (see Appendix B) is completed by the Regional Office based upon the information submitted in the application package. The agreement must define the approved project scope, budget, total project costs, and pertinent schedule dates in accordance with the application. Modifications to grant amounts, scope of work or other items are made on the basis of the review process, and special conditions of the grant are included in Part III b. These special conditions may be based upon clearinghouse comments, requests from the State agency or conditions unique to the project.

The applicant is given three weeks to accept the grant offer, and to return the signed grant agreement/amendment to EPA. The individual signing the grant agreement/amendment on behalf of the applicant should be the authorized representative who signed the application. Differences must be explained and a new authorizing resolution submitted (see Application Form item E.3 of this chapter) if such occur.

Re: 40 CFR 30.345
40 CFR 35.930

G. PREPARATION OF THE FACILITY PLAN

Purpose and Discussion:

Program responsibility for the progress of a project does not end with the grant offer. The reviewer must be continually aware of the status of the project to insure that the facility plan is completed in accordance with special requirements and the approved schedule submitted with the plan of study.

The reviewer should work closely with the grantee in preparation of the facility plan and should review portions of the plan as they are developed. This will insure that all regulatory requirements are satisfied and that additional information and necessary changes are incorporated into the plan in the most expeditious manner.

The detail of facilities planning will vary depending on the complexity and scope of the project and "shall be conducted only to the extent that the Regional Administrator finds necessary in order to insure that facilities for which grants are awarded will be cost effective and environmentally sound." This allows the reviewer to exercise flexibility in advising the grantee as to plan requirements.

Procedures:

Shortly after award of a Step 1 grant, the reviewer should:

1. contact the grantee and his consultant and make known the kinds of advice and assistance available from the State and EPA during the preparation of the facilities plan;

2. advise the grantee as to progress reports, which must be submitted quarterly for any facilities planning project scheduled to take more than 1 year for completion;

3. advise the grantee (normally on large complex projects) that periodic inspections or audits will be made by either the State or EPA;

4. point out special grant conditions.

Note: During preparation of the plan, conduct midcourse meetings and other progress reviews as necessary.

Re: 40 CFR 35.917-3(b), .917-4(b), .925-13, .935-7

H. ADMINISTRATIVE REVIEW (FACILITY PLAN)

1. Clearinghouse Comments

Purpose:

The grantee must submit the completed facility plan to the appropriate clearinghouse to allow for review and comment by interested agencies in accordance with the procedures of the Project Notification and Review System (OMB Circular A-95).

Discussion:

Before submitting the completed facility plan to the State agency, the grantee is required to obtain comments from the appropriate State and Regional clearinghouses. The clearinghouses are to review the plan, circulate it to interested agencies, and return their comments to the grantee within 30 days. If the comments are adverse, the grantee must submit, with the completed plan, a statement explaining how the comments were considered.

If, as a result of the facility plan review by the State or EPA, the proposed project is modified, in accordance with A-95 procedures, it may be necessary to obtain clearinghouse comments on the facility plan again.

Review Procedures:

The reviewer must consider all adverse clearinghouse comments. The comments may require further explanation from the applicant, State or clearinghouse. If the reviewer finds that any adverse comments are not adequately addressed, the completed facility plan must be returned to the applicant through the State agency.

Re: 40 CFR 30.305
40 CFR 35.917-1(f)
OMB Circular A-95
Guidance for Preparing a Facility Plan (MCD-46)

2. State Review and Certification

Purpose:

The State agency is responsible for the review and coordination of each facility plan and must provide certification to EPA that these responsibilities have been met.

Discussion:

After obtaining clearinghouse comments, the grantee must submit the completed facility plan and the clearinghouse comments to the State agency for review. The State is to insure that the facility plan is in accordance with the water quality objectives of its programs. Problems between the State and grantee should be resolved prior to review by EPA. Facility plan approval by EPA cannot be made without State certification.

Review Procedures:

The State is to certify that the completed facility plan:

a. conforms with the regulatory requirements for a facility plan;

b. conforms with any completed basin plan (303(e));

c. has been available to any concerned 208 planning agency for comment;

d. conforms with any approved waste treatment management plan (208(b)).

Re: 40 CFR 35.917-7
Guidance for Preparing a Facility Plan (MCD-46)

I. FACILITY PLAN REVIEW

General

The plan must encompass the following:

1. a description of the treatment works for which plans and specifications will be prepared including:

   - engineering data

   - cost estimates

   - schedules for completion of design and construction;

2. a description of the complete treatment system of which the works are a part;

3. infiltration/inflow documentation;

4. a cost-effectiveness analysis of 1, 2, and alternatives including evaluation of:

   a. the relationship of capacity to needs and reserve

   b. flow and waste reduction, including non-structural measures

   c. optimum performance of existing system

   d. ability to meet effluent limitations

   e. application of best practicable waste treatment technology

   f. ultimate disposal of effluent and sludge

   g. the environmental impacts as contained in an adequate environmental information document

   h. innovative and alternative technology processes

   i. primary energy requirements;

5. effluent limitations or NPDES permit;

6. clearinghouse comments;

7. a final responsiveness summary of public participation;

8. a statement that grantee has resources to construct, operate and maintain the treatment works;

9. a statement of compliance with Civil Rights Act;

10. a description of recreation, open space and water access opportunities analyzed in the recommended plan;

11. a municipal pretreatment program;

12. an estimate of total project costs and charges to customers;

13. a statement on the availability and estimated cost of proposed sites.

Re: 40 CFR 35.917-1

NEPA

Regulations (40 CFR 6.506) for the National Environmental Policy Act (NEPA) require that "an adequate environmental information document must be an integral part of any facilities plan submitted to EPA or to a State." In States where the review of facilities plans has been delegated, State personnel must prepare a preliminary environmental assessment that will serve as the basis for EPA's decision to issue a finding of no significant impact (FNSI) or an EIS. The environmental information document must cover all potentially significant impacts, related factors and concerns under the following:

1. a description of the existing environment, with emphasis on the conditions relevant to the analysis of alternatives;

2. a description of the future environment without the project (no action);

3. a discussion of the purpose and need for wastewater treatment in the planning area;

4. documentation of sources used in the evaluation;

5. an evaluation of alternatives, with attention given to long term impacts, irreversible impacts and induced impacts;

6. a discussion of the environmental consequences, including direct and indirect effects of the proposed action;

7. a description of steps to minimize adverse effects, both structural and nonstructural, considered in the plan or identified during review, including any which should become contingencies to award of further grant assistance.

To enable grantees to comply with these often complex environmental review requirements, EPA has prepared a publication entitled "Environmental Assessment of Construction Grants Projects" (FRD-5).

Re: 40 CFR 6.506

Contents

The facilities planning requirements overlap in many areas and may not always be understood by the applicant or his consultants. To assist the grantee in understanding and satisfying these requirements, EPA prepared a publication entitled, "Guidance for Preparing A Facility Plan" (MCD-46). The guidance, however, is for advisory information only. A grantee may select his own method or format for preparing a facility plan as long as he meets the regulatory requirements above.

The "Guidance for Preparing A Facility Plan" (GPFP) contains a suggested format or outline for the plan. The same format is used in the publication "Model Facility Plan for a Small Community." The review procedures in this handbook are based on a facility plan prepared in the suggested format. Some of the suggested chapters or subparts are self-explanatory and do not require explanations. Others are more complex and Purpose, Discussion and Review Procedures are provided. The references at the end of each part refer to the regulations, program requirements memoranda, or guidance which apply to the matters covered therein.

1. Summary, Conclusions and Recommendations

(Self-explanatory)

2. Introduction

2.1 Study, Purpose and Scope

(Note: The proposed project may include only sewage collection, trunk or intercepting sewers, treatment plant expansions or additions, small wastewater systems, or alternative wastewater treatment systems. The review procedure which follows assumes a complete treatment system including all of the above. For projects of lesser scope, some items will not be applicable and can be omitted.)

2.2 Planning Area (Map)

(Self-explanatory)

3. Effluent Limitations

Purpose

The limitations upon the effluent from the proposed treatment works establish quantitative parameters which must be achieved in order to meet water quality standards or environmental needs.

Discussions

The facility plan is prepared and the treatment works are constructed to meet the effluent limitations usually for the segment of receiving waters into which the effluent will be discharged. These limitations, as a minimum, require best practicable waste treatment technology (BPWTT, secondary treatment or more stringent water quality related requirements for discharge to surface waters), except for discharges from combined systems. Combined (storm and sanitary) sewer systems present a special case. The required levels of pollutant removals, and the evaluation of alternatives to achieve these levels, are to be determined case-by-case as required by Agency policy (PRM 75-34).

The facility plan must evaluate alternative solutions to the water pollution or public health problem, and the effluent limitations may vary from one alternative to the next. The effluent limitations for existing discharges are contained in the discharge permit issued under the National Pollutant Discharge Elimination System (NPDES). For completely new systems, the State will establish the effluent limitations based on approved water quality standards.

In cases of treatment and discharge, or land application systems involving discharge to surface waters, secondary treatment is required for segments classified as effluent limited. Higher levels of treatment may be required in order to achieve water quality standards. Segments of receiving waters requiring higher treatment, for nutrient removal or greater reduction in BOD or suspended solids, are designated as water quality limited (see Chapter II). Where land application or utilization techniques result in eventual discharge to groundwaters (infiltration, percolation, etc.), the minimum acceptable treatment must be able to meet BPWTT.

Current EPA policy requires a rigorous review of projects designed for treatment more stringent than secondary. The incremental, additional capital costs of a project, which are attributable to effluent limitations or water quality requirements more stringent than secondary, must be based on a justification showing significant receiving water quality improvement and mitigation of public health problems where they exist. Furthermore, projects requiring treatment more stringent than secondary should be evaluated for their financial impact on the community. Under this policy, the Regions have primary responsibility for reviewing such projects, and will decide how to proceed in accordance with PRM 79-7. In general, where projects have incremental costs beyond secondary of $1 million or less, the Region retains the decision making authority. Where incremental costs exceed $1 million, approval must be given by EPA Headquarters. Specific procedures to be followed in the review of applicable projects are identified im PRM 79-7.

Although secondary treatment is the minimum acceptable for discharge to navigable waters, regulations (40 CFR Part 125) allow modification of NPDES permits to provide levels of treatment below secondary under certain circumstances. These regulations apply to publicly owned treatment works (POTW) having existing discharges to marine waters as of December 27, 1977, where special applications for waivers were made in accordance with timing requirements.

In preparing the facility plan, the grantee is required to evaluate the following waste treatment management techniques:

"(i) Biological or physical-chemical treatment and discharge to receiving waters;

(ii) Systems employing the reuse of wastewater and recycling of pollutants;

(iii) Land application techniques;

(iv) Systems including revenue generating applications; and

(v) Onsite and nonconventional systems."

The State has the responsibility for certifying effluent limitations. Where existing effluent limitations are found to be inadequate, and State funds for recomputing the allocations are not available, 201 funds may be used to define effluent standards applicable to the project.

Review Procedures:

The reviewer must establish that the correct set of effluent limitations has been used, by comparing the stated limitations with:

a. the discharge permit in the case of existing discharges;

b. limitations established in the WQM plan;

c. the reuse or groundwater recharge requirements if land application or onsite and nonconventional systems have been selected.

Errors or inconsistencies are to be corrected by the State agency.

Note: In accordance with EPA policy, special review procedures are required in the event of projects involving treatment levels higher than secondary. In such cases, it is essential that the reviewer consult PRM 79-7 for details.

Re: 40 CFR Part 133, Part 125
40 CFR 35.917, .925-2, .925-6
GPFP (MCD-46)
Evaluation of Land Application Systems
PRM 79-3, PRM 79-7, PRM 79-8, PRM 79-11

4. Current Situation

4.1 Conditions in the Planning Area

Purpose and Discussion:

The existing conditions in the project area are described in order to form a basis of comparison among alternatives. If the topics listed below are described in detail, they will provide a clear distinction between the "before" and "after" conditions. The "after" conditions are described in later chapters.

Sources of information should be cited or referenced.

Review Procedures:

Suggested topics which describe the existing conditions may include:

a. A description of the planning area--planning area boundaries, political jurisdictions, and physical characteristics (topography, geology, soils, hydrology, etc.);

b. Organizational context--the role and relationship between all existing organizations involved in planning, financing, and operating publicly owned treatment works;

c. Demographic data--the most current population estimates (in accordance with 40 CFR Part 35 Appendix A) and the latest decennial census; population growth patterns and densities; minority areas not presently sewered; number and types of major industries and other employment generating entities; existing land-use patterns and controls including comprehensive planning and zoning regulations;

d. Water quality--identify quality, quantity and uses of existing surface and groundwaters;

e. Other existing environmental conditions--to the extent appropriate, descriptions of air quality, noise levels, energy production and consumption, wetlands, flood plains, coastal zones, wild and scenic rivers, prime agricultural lands and other environmentally sensitive areas, historic, architectural and archeological sites, plant and animal communities and habitats which may be affected, especially those on the threatened or endangered species list, and related Federal or State projects in the area.

The reviewer is to take special note of the items underlined in e. above and included in the discussion since the impact of the proposed project on these items may require the grantee, State or EPA to follow special review procedures and may result in special conditions on subsequent grants (see section 10). Also, the reviewer should note major industrial contributors to insure that they provide pretreatment, as necessary, in the proposed project.

Re: 40 CFR 6.506
GPFP (MCD-46)
PRM 75-32

4.2 Existing Wastewater Flows and Treatment Systems

Purpose and Discussion:

The inventory of existing wastewater treatment facilities, including onsite disposal systems, furnishes information as to the extent of the existing systems, their interrelationships, and the base line flow information by which future flows will be determined. The data may indicate conditions which limit the number of feasible alternatives and give an indication of the severity of the pollution problems. Later sections address the performance of existing systems and methods of achieving optimum performance.

Review Procedures:

The inventory should, to the extent appropriate:

a. show the location of all treatment plants, sludge management areas and facilities, pretreatment plants, pumping stations and collection systems;

b. describe the facilities identified in a., including design capacity, existing flows and characteristics of wastes, overloaded conditions, if any;

c. show the location of, and describe, major industrial discharges;

d. show locations of significantly developed areas served by onsite or nonconventional systems;

e. include a discussion and analysis of average, peak, dry, and wet-weather flows (also discussed in I/I analysis);

f. show the locations of all bypasses and overflows;

g. describe the extent of any combined sewer system;

h. describe any flow reduction program in effect.

Re: GPFP (MCD-46)
PRM 78-9

4.3 Infiltration and Inflow

Infiltration/Inflow Analysis

Purpose:

The infiltration/inflow analysis is conducted to identify the existence, or possible existence, of excessive infiltration/inflow within each existing sewer system to be connected to the proposed treatment facilities when the State has inadequate information upon which to base a certification of such conditions.

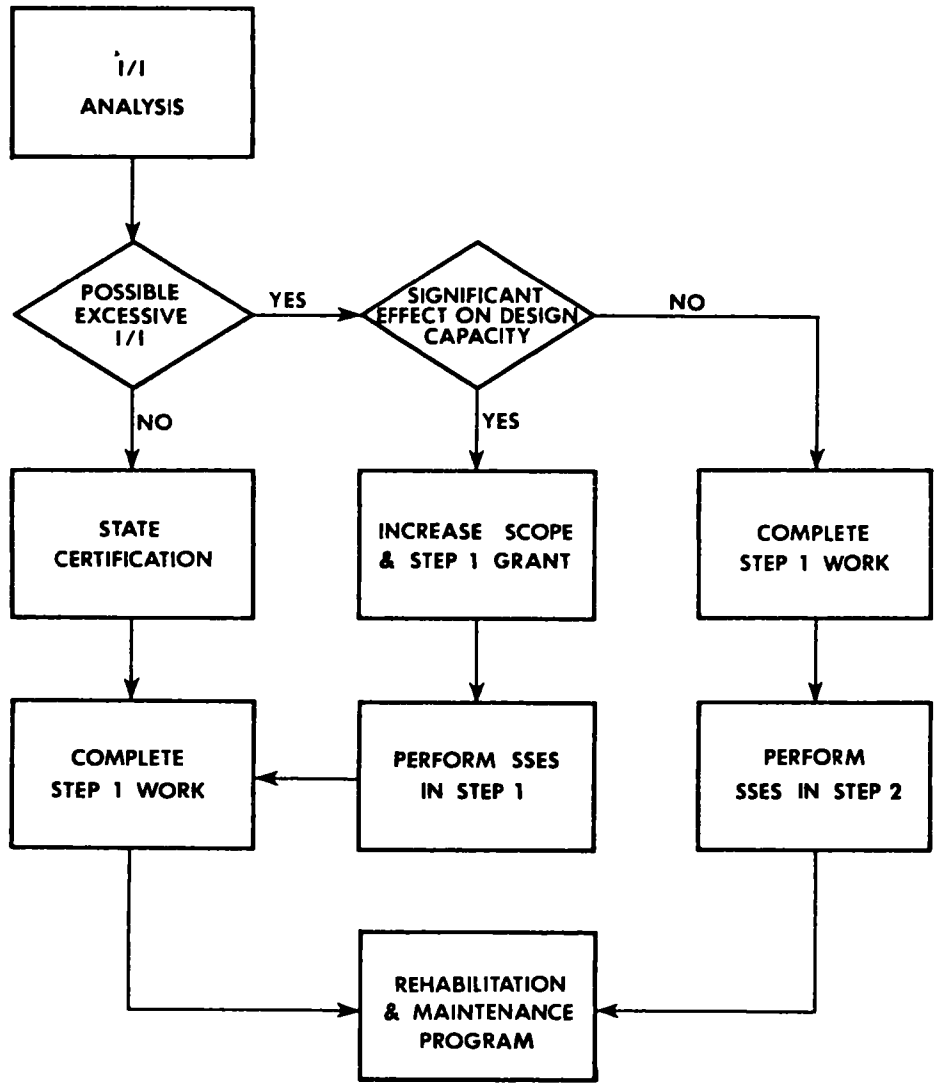
Discussion:

As part of the facility plan, a sewer system evaluation is begun, consisting of an infiltration/inflow analysis conducted in accordance with the "Handbook for Sewer System Evaluation and Rehabilitation", and/or PRM 78-10. The purpose of the analysis is to identify infiltration and inflow which may be economically removed from the system. The results are used in sizing the proposed facilities.

Program experience gained during the initial years indicates the following procedures can be used to accelerate infiltration/inflow decisions:

a. When the flow meters at the treatment plants are determined to be well maintained and acceptably accurate, the quantity of I/I should be determined on the basis of plant flow charts in conjunction with the calculated theoretical base flow. A subsystem approach for determining I/I conditions may be advisable in large systems, especially where flow records for pump stations are available or where specific problem areas are known or suspected by the grantee.

Figure IV-2. Procedures for Infiltration/Inflow Review



See Appendix A for overall schematic diagram of Construction Grants Process

b. When the maximum infiltration rate based on the highest weekly (7 days) average within a twelve month period is less than 1,500 gallons per day per inch of pipe diameter per mile of sewer, including service laterals, the infiltration is considered nonexcessive. This should normally be based on the total system flow.

c. For infiltration rates greater than 1,500 gpd/in/m, a cost-effectiveness study is required for determining the possible existence of excessive infiltration.

d. For separate sanitary sewers, possible existence of excessive inflow should be determined by performing a cost-effectiveness analysis.

e. The results obtained from an economic study in the I/I analysis phase are, at best, preliminary and subject to further verification, when possible excessive I/I exists. Therefore, the cost-effective analysis should be simple and brief, and additional data should not be routinely required.

f. A report summarizing the results based on the above analysis is required by EPA. The report should provide flow data necessary to substantiate the report's conclusions. When I/I is determined to be possibly excessive, the report should include, in addition to flow data, a detailed program and estimated costs for performing a sewer system evaluation survey (SSES).

g. Where possibly excessive I/I is identified, the applicant may use the exception clause in the regulations (see 40 CFR 35.927-5(c)). This clause allows the grantee to complete the facility plan and conduct the sewer system evaluation survey concurrently with project design. To accomplish this, the grantee needs to estimate the nonexcessive flows or demonstrate that the proposed treatment works will be a part of the rehabilitated sewer system.

The prudent application of these policies may allow the grantee to conduct the sewer system evaluation survey, if required, concurrently with the treatment works design. However, the grantee may conduct or EPA may require the sewer system evaluation survey as an extension of the facility plan. Such work may be funded by increasing the Step 1 grant.

The I/I analysis may be submitted by the grantee to the State agency at any time prior to the submission of a completed facility plan.

In lieu of an I/I analysis, the State agency may certify that excessive I/I does or does not exist. In cases where this procedure has been established and is still in effect, the grantee need not submit an I/I analysis.

Review Procedures:

If the State agency makes a certification of excessive or nonexcessive I/I, the following are applicable:

a. the State must continue to have the authorization of the Regional Administrator to make such certification;

b. the certification form must be signed by the authorized State official and contain language specified in PRM 75-7.

If the grantee submits an I/I analysis, determine that:

a. the analysis contains a conclusion as to the quantity of possibly excessive I/I or that excessive I/I does not exist;

b. the methods and data analyzed are sufficient to support the conclusions;

c. the cost estimates and schedules for a sewer system evaluation survey have been included as appropriate.

Re: 40 CFR 35.917-1(c), .925
PRM 75-7, PRM 78-10
Handbook for Sewer System Evaluation and Rehabilitation, (MCD-19)

Sewer System Evaluation Survey

Purpose:

The sewer system evaluation survey is conducted where necessary to locate and quantify sources of infiltration/inflow and to determine those which can be cost-effectively eliminated.

Discussion:

The evaluation survey must be performed by the grantee in all cases where possibly excessive I/I has been identified. It may be performed either under a Step 1 or Step 2 grant. These options are discussed in the Infiltration/Inflow Analysis section.

The survey is performed to determine "location, estimated flow rate, method of rehabilitation and cost of rehabilitation versus cost of transportation and treatment for each defined source of infiltration/inflow." Procedures for conducting an evaluation survey are explained in the guidance documents and PRM 78-10.

Subject to the eligibility requirements of 40 CFR 35.927-3(a), which prohibits the funding of rehabilitation which should be a part of the applicant's normal operation and maintenance responsibilities, structural repairs and sewer replacement may be performed under a Step 1 grant when approved by the State and EPA. However, when such repairs are required for a substantial portion of the sewer system, especially in cases where public hearings are warranted, the grantee should propose that repair work be performed at later dates and perhaps as part of Step 2 or Step 3.

Review Procedures:

Review the sewer system evaluation survey report to determine that:

a. the survey report presents the results of the survey and supports the conclusions concerning sources of I/I;

b. a cost-effectiveness analysis is included for sources of infiltration/inflow, based on a comparison of cost of transportation and treatment versus cost of rehabilitation, or the 1500 gpd/in/m rate is used to screen subsystems for excessive infiltration;

c. the report includes a proposed rehabilitation program, with a detailed cost estimate for completion and bidding specifications,

d. the net savings to be realized through rehabilitation are identified both in terms of capacity and total cost;

e. the quantities of allowable infiltration and inflow are identified (those which will not be rehabilitated) and included in the design capacity of the proposed treatment facilities (coordinate with review of design);

f. where the evaluation survey is extensive, the work carried out is not a part of the grantee's normal operation and maintenance responsibilities;

g. the report contains sufficient documentation to support the results, including raw data, illustrations, inspections forms, photographs and other information, where appropriate.

Re: 40 CFR 35.927
PRM 75-7, PRM 78-10
Handbook for Sewer System Evaluation and Rehabilitation (MCD-19)

Sewer System Maintenance

Purpose and Discussion:

Following the rehabilitation phase, a final analysis on the I/I conditions should be performed by means of plant flow charts. When available, pump stations flow data or single point flow monitoring at the treatment plant should be used. The analysis should be simple and brief to allow a determination of the total quantity of non-excessive I/I remaining in the system. In addition, the analysis should be performed based on flow data obtained during groundwater conditions comparable to those when the initial I/I condition was determined.

Review Procedures:

A positive and realistic maintenance program which addresses the following should be submitted:

a. The timely elimination of all excessive inflow sources originating from private sources which can be cost-effectively removed. An acceptable timetable should specify the elimination of these inflow sources before the completion of the treatment works construction;

b. The establishment of continuing sewer maintenance programs to ensure that the sewer systems will not be subject to excessive I/I in the future.

Re: PRM 78-10

4.4 Performance of Existing Systems

Purpose:

Each major component of the existing system is to be evaluated to determine if it can be used in the new project. This includes both centralized (conventional) facilities and decentralized systems (i.e. onsite systems).

Discussion:

Many existing sewage treatment facilities, including onsite systems, are not operated at their optimum efficiency. The reasons for poor performance are numerous, but it has been found that generally it is more cost-effective and environmentally sound to bring existing facilities up to optimum performance rather than to abandon them. Even if optimum performance of existing facilities cannot achieve effluent limitations, additional facilities necessary to do so should be less costly. Operating problems affecting performance should be described in this section. For decentralized systems, the extent, nature and location of malfunctions should be described in accordance with agency guidance (PRM 78-9).

In reviewing the grantee's evaluation of the existing system, the reviewer may wish to compare the evaluation with the operation and maintenance reports (EPA Form 7500) for the project.

Review Procedures:

Items which might be considered in evaluating the performance of existing systems include:

a. the adequacy of the treatment plant design for the type and amount of flow being treated (compare with NPDES permit);

b. the adequacy of the operation and maintenance program (compare with EPA Form 7500);

c. the effects of infiltration/inflow;

d. the effects of industrial discharges;

e. adequate documentation of problems associated with onsite disposal systems.

Re: 40 CFR 917-1(d) (3)
GPFP (MCD-46)
PRM 78-9

5. Future Situation

5.1 Land Use

Purpose:

The ability of the land and its resources to support various uses is analyzed to aid in determining future wastewater flows.

Discussion:

The planning period for wastewater treatment facilities should be 20 years. Construction of the treatment plant may be phased over this period with the initial capacity less than the 20 year flows. Intercepting and truck sewers shall be designed for 20 years, unless the grantee can demonstrate that longer design periods (not to exceed 40 years) are consistent with WQM plans and would reduce overall primary and secondary impacts.

The projected land uses may be a limiting factor in determining the size, phasing, and location of the proposed facilities. Undevelopable lands, such as steep slopes, highway rights-of-way, power line easements, flood plains, environmentally sensitive areas, parks, wetlands and prime agricultural lands, etc., are not to be included when estimating future flows based upon the land uses. The land uses considered by the grantee in his study must not contravene State or local land use plans.

In the absence of future land use plans, the grantee should consult with agencies responsible for planning in the area.

Review Procedures:

Points which might be covered under land use include:

a. present land uses to determine patterns of development;

b. development patterns and zoning ordinances to see that they are in basic agreement;

c. future land use plans which have been adopted and are being implemented through the use and enforcement of zoning ordinances;

d. use of undevelopable lands in estimating future flows;

e. consultations with responsible planning agencies in projecting land use where future land use plans are lacking.

Re: 40 CFR 6.506
40 CFR 35.917-1(d)(1) and Appendix A
GPFP (MCD-46)

5.2 Demographic and Economic Projections

Purpose and Discussion:

Increases in future waste loads and flows result in part from population increases and industrial growth. The determination as to which population projections should be used depends on the status and applicability of 208 agency projections and approved, disaggregated State projections for the facility planning area. In the absence of either of these, future population may be forecast by linear extrapolation of trends in the recent past (1960 to the present). Standards for compliance are provided in 40 CFR 35 Appendix A. Also, if the planning area includes industrial development boards or other agencies concerned with economic development, these agencies should be consulted for assistance in estimating future industrial needs.

Review Procedures:

Review projections to determine that:

a. applicable projections (40 CFR 35 Appendix A) were used;

b. any departures from approved projections are justified and documented;

c. industrial growth trends were based on valid economic projections;

d. future growth trends have considered the limitations imposed by land use, air or water quality restrictions, water supply, development controls or other constraints.

Re: 40 CFR 6.506
GPFP (MCD-46)
40 CFR 35 Appendix A 8(f)(2)

5.3 Forecasts of Flow and Waste Load

Purpose and Discussion:

The forecasting of future flows and wasteloads in the planning area ties in several topics which have been considered earlier in the facility plan. The future flows and loads will be directly related to the future population to be served, based on results of a survey for presently unsewered areas and industrial activity (i.e., industries likely to use municipal plants), subject to the limitations of land use, air quality maintenance plans or other limiting constraints and the quantities of nonexcessive infiltration/inflow. The future flows and loads are added to the existing wastewater flows (section 4.2).

Appendix A to the regulations (40 CFR Part 35) provides standards to be followed in the estimation of wastewater flows, based on population and industrial growth, for facilities planning. Use of average per capita flow rates must be based on these standards or otherwise justified.

Review Procedures:

The reviewer should focus on the methods used in estimating future wasteloads and flows to insure compliance with the regulations. The following considerations must be incorporated where appropriate:

a. approvable projections of eocnomic and population growth;

b. documentation of need for presently unsewered and/or undeveloped areas;

c. estimates of nonexcessive infiltration/inflow;

d. analysis of pollutant content (characteristics) and flows in the existing system;

e. consideration of combined sewer overflow;

f. industrial waste flows and loads, considering possible reductions due to imposition of user charges, industrial cost recovery, or pretreatment;

g. projections of possible reductions in flow resulting from measures to reduce water use and waste production (installation of water meters or ban on garbage grinders, for example);

h. limitations upon flows due to land use, air quality maintenance plans or other constraints.

Re: 40 CFR 35.917, .927, .935-13, Appendix A
40 CFR Part 403
GPFP (MCD-46)
PRM 78-9

5.4 Future Environment of the Planning Area Without the Project

Purpose and Discussion:

The statutes require that "no action" be considered as an alternative to any proposed project. In order to evaluate and compare "no action" with other alternatives, the future environment without the project must be visualized. The items used in this process should be the same as those used in Section 4.1 to the extent that they include changes to the environment.

Re: 40 CFR 6.506
GPFP (MCD-46)

6. Alternatives

6.1 Optimum Operation of Existing Facilities

Purpose:

The alternative of optimum operation of the existing facilities is investigated as a first step in the search for a cost-effective solution to the water quality problem.

Discussion:

An investigation of existing facilities, including onsite disposal systems, may reveal that they can function more efficiently with the addition of new equipment, operational changes or the addition and training of operating personnel, or that the facilities have already been operating at their optimum efficiency. Whatever the results of the investigation, the optimum operation of the existing facilities will determine what additions, expansions or replacements must be made, including better design, operation, and maintenance of private onsite systems, and the extent to which existing facilities can be converted and/or used in the new system. Any improvements expected as a result of future pretreatment by industrial contributors or removal of excessive infiltration/inflow should be evaluated and discussed.

Review Procedures:

In considering the alternative of optimum performance of the existing facilities, one or more of the following items may be appropriate:

a. the maximum performance levels possible with the existing process design;

b. the age and reliability of existing equipment and its remaining useful life;

c. the qualification and number of additional operating personnel needed;

d. the additional operating controls and laboratory facilities needed:

e. the process modifications possible (e.g., convert conventional activated sludge to contact stabilization; add aeration to stabilization ponds);

f. the impact of requiring industrial pretreatment;

g. the impact of removing excessive infiltration/inflow;

h. the effectiveness and suitability of existing onsite disposal systems, and possible modifications for improving efficiency.

Re: 40 CFR 35.917-1(d)(3)
GPFP (MCD-46)
PRM 78-9, PRM 79-8

6.2 Regional Solutions

Purpose and Discussion:

The possibility of a regional solution to wastewater treatment problems should be explored early in the planning process. If the question has been resolved by previous studies (e.g., water quality management plans), the result may be incorporated into the facility plan by reference. If not, the grantee should consider various alternatives, such as, interconnection of facilities, construction of one or more larger facilities in lieu of a greater number of small facilities; combining only selected system elements such as sludge management, laboratories, advanced treatment processes, etc.; joint management; the creation of septic district

authorities, etc. Note: regionalization should be given careful consideration. A regional alternative, involving extensive interceptor construction in otherwise undeveloped or undisturbed areas may not be justifiable when compared against the potential adverse impacts from induced growth. This should resolve the question as to the feasibility of regionalization as a viable alternative.

Projects involving more than one political jurisdiction require the completion of service agreements prior to the award of the Step 2 grant. Such agreements must cover financial arrangements, enforcement, user charge and industrial cost recovery requirements, sewer system rehabilitation, sewer use ordinances, etc. Since the agreements often entail long periods of negotiation, action on them should begin as early as possible during the development of the Facility Plan.

Re: 40 CFR 35.917-1(h), .920-3(b)(6)
GPFP (MCD-46)
PRM 79-8

6.3 Waste Treatment Systems

Purpose:

For each service area identified under the regional solution analysis, the "no action" alternative and other waste treatment management techniques must be investigated to determine which systems are most feasible and which may be eliminated from further consideration.

Discussion:

The combinations of alternative waste treatment systems could be astronomical and, therefore, a process must be developed which eliminates those which are not feasible and identifies those which should be investigated further. The statutes require that certain systems be investigated for every project, including innovative and alternative technologies (40 CFR 35.908). Beyond these, the application of basic engineering, environmental, and economic principles to the preliminary screening process will be sufficient to reduce the alternatives to a reasonable number.

The grantee is to present his reasons for eliminating each alternative investigated. Where the reasons for elimination are apparent, they should be briefly stated (e.g. "waste treatment

flows cannot be reduced by I/I rehabilitation or other water saving controls", "sludge incineration cannot be utilized as it would contravene existing air quality plans", "no action is not feasible as the present discharge does not meet effluent limitations and State has issued a cease and desist order"). However, alternatives must be given adequate consideration prior to elimination in all cases. When the reason for eliminating an alternative is not readily apparent, the grantee is to present evidence or discussion in sufficient detail to support his conclusion. In particular, rejection of land application must be adequately justified in all cases (PRM 79-3).

This analysis will identify the most feasible alternatives which will then be evaluated in greater detail.

Review Procedures:

Review the facility plan and determine that the following topics have been adequately addressed.

a. No Action

Generally, the "no action" alternative can be eliminated from consideration because of the need for the project as presented in the preceding chapters. However, where the "no action" alternative may be feasible, the facility plan should address this concept. The need for new facilities must be adequately addressed by the plan.

Re: 40 CFR 6.506
GPFP (MCD-46)

b. Flow and Waste Reduction

For communities with populations over 10,000 the plan will include a flow and waste reduction program and take the reduced flows into account in the proposed capacity of the treatment works. Possible elements of a flow and waste reduction program include:

- a public education program;

- sewer system rehabilitation to reduce or eliminate excessive infiltration/inflow;

- implementation of household plumbing fixtures and water-saving devices;

- State laws or local ordinances to reduce water use and nutrient discharges (e.g. phosphate detergent ban);

- adoption of water pricing policies;

- installation of water meters (proven to reduce water consumption);

- initiating industrial pretreatment requirements, reuse or recycling.

Re: 40 CFR 35.917-1 (d)(2)
GPFP (MCD-46)

c. Configuration of Sewers and Interceptors

When service areas have been established, the configuration of the collection sewers is pretty well prescribed with regard to routings and size (minimum size in most States is 8 inches). Attention should be directed toward trunk and intercepting sewer alternatives to insure that they conform to existing and future land use plans. Unless necessary to eliminate existing point source discharges, interceptors allowable for grant funding shall not be extended into environmentally sensitive areas, prime agricultural lands or other undeveloped areas. Similarly, at least two thirds of the expected flow from a proposed collection system will be for wastewaters originating from habitations in existence on October 18, 1972. The system should not provide any capacity for new habitations located on environmentally sensitive lands. Preliminary pipe sizes and costs may have to be estimated to reduce the alternatives to a manageable number.

Re: 40 CFR 35.925-13, Appendix A
GPFP (MCD-46)
PRM 78-9

d. Sludge Disposal

The plan should adequately address alternatives for sludge treatment and ultimate disposal of solids under the following methods:

- land utilization (agricultural, soil conditioner, etc.);

- composting;

- sanitary landfill;

- incineration, pyrolysis or coincineration with solid waste;

- ocean disposal (only under very special circumstances).

EPA has published guidance documents for use by grantees and their consultants in the evaluation of sludge disposal alternatives, and will continue to publish guidance as the "state-of-the-art" develops in this area.

In evaluating disposal alternatives, the plan should adequately consider public health issues, regulatory constraints, technological aspects, and social, economic and institutional factors. The environmental effects of alternative disposal methods should be addressed in the environmental information portions of the facilities plan.

(Note: Criteria for determining eligibility of land for use in sludge disposal is discussed in Chapter VII).

Re: 40 CFR 35.917-1(d)(6)
GPFP (MCD-46)
Sludge Treatment and Disposal (EPA-625/4-78-012)
Municipal Sludge Management: Environmental Factors (MCD-28)
Municipal Sludge Management: EPA Construction Grants Program, An Overview of the Sludge Manage- Situation (MCD-30)
Application of Sewage Sludge to Cropland: Appraisal of Potential Hazards of the Heavy Metals to Plants and Animals (MCD-33)

e. Best Practicable Waste Treatment Technology (BPWTT)

The regulations require that each project evaluate, as a minimum, the following five waste treatment management techniques:

- biological or physical-chemical treatment and discharge to receiving waters;

- treatment and reuse;

- land application techniques;

- systems including revenue generating applications; and

- onsite and non-conventional systems.

Note: Rejection of land treatment alternatives shall be supported by a complete justification. Factors to be evaluated are:

- alternative site characteristics
- loading rates and land area
- estimated costs
- level of preapplication treatment
- environmental effects

See PRM 79-3.

As the "state-of-the-art" develops for each of these techniques, EPA will publish additional technical bulletins describing the application and evaluation of each. In selecting which of these alternate waste treatment management techniques is most cost-effective for the proposed project, the grantee must consider the application of the best practicable waste treatment technology (BPWTT).

EPA has established that the BPWTT for "treatment and discharge to receiving waters," generally requires a minimum of secondary treatment (see Section 3) or such advanced waste treatment methods as is necessary and justifiable (PRM 79-7) to achieve the effluent limitations required to meet applicable water quality standards. Since "reused" wastewater and runoff of "land application" techniques eventually enter receiving waters, the same level of treatment is required for these techniques. In addition, where discharges to groundwaters from "land application" may occur, the level of treatment must comply with EPA BPWTT criteria protecting existing or potential uses of such groundwaters.

Where service is proposed for existing unsewered areas, these areas must meet the requirements of 40 CFR 35.925-13. Furthermore, thorough consideration of onsite and non-conventional systems must be given for these unsewered areas in comparison to conventional collection and treatment. Specific instructions are included in PRM 78-9 and PRM 79-8.

As each of these techniques is evaluated, the grantee must also consider how well the system lends itself to the application of future technology for reclaiming or recycling the effluent.

Re: 40 CFR 35.917-1(d)(5), .925-13
PRM 78-9, PRM 79-3, PRM 79-7, PRM 79-8
Alternative Waste Management Techniques for Best Practicable Waste Treatment

f. Combined Sewer Overflows and Stormwater Discharges

Projects involving treatment and control of combined sewer overflows may be considered only after the planning process has clearly established their cost-effectiveness. Such projects must be considered on a case-by-case basis after a careful review of all alternative control techniques has shown that, even after industrial effluent limitations and a minimum of secondary treatment for dry weather municipal flows are achieved, the selected alternative is needed to protect the beneficial use of the receiving waters.

Alternative levels of treatment and options for achieving each must be evaluated to insure selection of the most cost-effective approach. Where a multiple-purpose approach is proposed, its grant eligibility cannot exceed the cost of the most cost-effective single-purpose option.

Re: 40 CFR 35.925-21
PRM 75-34, 77-4

g. Industrial Service

The joint treatment of industrial and domestic wastes should be considered and,where appropriate,encouraged. In considering industrial discharges, the grantee should evaluate to the extent necessary: (1) interceptor or collector sewers proposed for construction exclusively to serve industrial users (non-allowable grant cost); (2) the compatability of industrial wastes with domestic wastes; (3) the requirements for pretreatment (see Section 9.5 of this Chapter); (4) the volume, strength and method of discharge (batch or uniform); (5) the cost of industrial pretreatment and

joint treatment versus separate industrial treatment; (6) the method of implementing and enforcing limitations on industrial discharges.

Re: 40 CFR 35.925-15, .907
40 CFR, Part 403
GPFP (MCD-46)

h. Innovative and Alternative (I&A) Technology

The CWA requires I&A technology assessment by Grantees in their facility planning, and provides incentives to insure that the technology will be seriously considered. Alternative technology entails proven processes and techniques of wastewater treatment which provide for the reclaiming and reuse of water, for productively recycling waste water constituents or otherwise eliminating the discharge of pollutants, or for recovering energy. Innovative technology involves developed methods which have not been proven fully in the circumstances of their contemplated use. They may be either alternative technology or conventional concepts of treatment, which have an acceptable level of risk and a corresponding opportunity for significant advancement of the state-of-the-art to meet certain national goals.

Facilities planning grants (Step 1) made after September 30, 1978 must address I&A technology. The incentives provided by CWA include: 85 percent Federal grants (Step 2, Step 3, and Steps 2 + 3) for approved I&A projects, 100 percent grants if the projects fail within two years after final inspection; set aside (reserve) of State's allocations to be used for funding the increased grants from 75 percent to 85 percent; and a cost preference of 115 percent for approved I&A projects.

Alternative systems to solve the water pollution problem are initially classified as alternative technology or conventional systems. For those which are not fully proven, the risk of success (or failure) must be evaluated against the potential for advancement in the state-of-the-art. For alternatives passing the fully proven test or where the risk appears reasonable, the alternatives are evaluated against six criteria. (See 40 CFR Part 35 Appendix E.) An alternative technology project may be classified as innovative if it meets any one of the six criteria. Conventional systems may be classified as innovative by meeting either the 15 percent life cycle cost reduction or 20 percent net primary energy reduction.

All feasible alternatives for which cost effectiveness analysis will be done are analyzed to identify the non-innovative system which is the lowest cost,and the non-innovative system which is the lowest energy consumer. I&A technology alternatives are then compared with these non-innovative systems and the 115 percent cost preference is applied, i.e., the I&A alternatives may be as much as 15 percent higher cost than the lowest costing alternative and still be considered equal. The 115 percent cost preference is applied to the present worth cost (capital plus O&M minus salvage, etc.) replaced components or system.

If the I&A project is cost effective, environmentally sound, implementable and been subjected to public review (public participation program) the Step 2, Step 3, or Steps 2 + 3 federal grant may be increased to 85 percent.

Small wastewater systems for communities of 3,500 population or less or sparsely populated areas (3,500 or less) of larger communities may also be considered as alternative technology projects provided they meet certain criteria. These criteria include: on-site disposal methods, cluster disposal systems, collection systems using 6 inch or smaller gravity sewers, pressure or vacuum sewers, etc. The small wastewater alternative technology system is compared with a conventional system, and if after application of the 115 percent cost preference the alternative technology system is cost effective, the treatment works including the collection system may be eligible for 85 percent grants. These systems may be publicly or privately owned but a public body must apply for the grant and be responsible for the implementation, construction, operation and maintenance of the system.

It is important that the reviewer consult "Innovative and Alternative Technology Assessment Manual" (MCD-53) for a more complete discussion of I&A requirements, policy, methodology for evaluating, and for guidelines in assisting both the grantee, consultant and reviewer.

Review Procedures:

(1) If Step 1 grant was made after September 30, 1978, insure facility plan address I&A technology.

(2) Insure that land application of effluent has been considered and at a minimum one slow rate (irrigation) and one rapid rate infiltration alternative have been included. If land application of effluent has not been selected, insure facility plan clearly justifies the reason for rejection.

(3) The I&A alternative must either be fully proven or a risk assessment must be addressed.

(4) Where either alternative technology or conventional systems are evaluated for innovative classification, insure that the facility plan addresses which criteria the alternative has met (conventional must meet either 15 percent LCC reduction or 20 percent net primary energy reduction).

(5) The facility plans must clearly identify the lowest cost and least energy non-innovative system for comparison with the I&A alternatives.

(6) Insure that the cost effectiveness analysis has been correctly computed taking into account:

   (a) cost comparisons are for either present worth or equivalent annual cost;

   (b) O&M, salvage value, staged construction, etc. have been taken into account over the 20 year planning period;

   (c) land has been inflated at 3 percent per year and natural gas at 4 percent per year (must compute present worth of salvage value of land);

   (d) other costs do not include inflation;

   (e) alternatives are compared on equal basis of area sewered, population served, equivalent levels of treatment, etc.

(7) The 115 percent cost preference has been properly applied:

   (a) For treatment plants where I&A components are 50 percent or greater of the eligible treatment works costs (excluding collection and

intercepting sewers) the 115 percent cost preference is applied to the entire treatment plant.

(b) For treatment plants where the I&A components are less than 50 percent of the eligible treatment works costs (excluding collection and intercepting sewers) the 115 percent cost preference is applied only to the replaced components.

(c) For small wastewater treatment systems the 115 percent cost preference is applied only to the publicly owned facilities including alternative collecting system (not privately owned).

(8) If land application of sludge has been selected, insure the sludge has been used productively (composting, agriculture, reclaiming of disturbed land, codisposal with refuse) to qualify as I or A technology.

(9) If an alternative has been designated as innovative under the 20 percent net primary energy reduction criteria, insure energy boundary conditions have been properly drawn.

(10) If codisposal of sludge and refuse is analyzed, insure that costs have been proportioned properly.

(11) For projects proposing anaerobic digestion with 90 percent methane recovery, insure that the methane is productively used (either on or off site) and the revenue, if any, has been considered in the cost effectiveness analysis.

(12) The federal grant participation has been computed properly to present accurate costs to the public.

Re: 40 CFR Part 35, Preamble
40 CFR 35.905, .908, 915(a)(1)(iii), (2), .915-1(b), (e), .917-1, .918-1, -2, -3, .930-1 (b), -5, .935-20, .936-13(a)(2), (b), .940-3(a), (b), (c), Appendix A, Appendix C-1(2)(d)
Appendix E,Innovative and Alternative Technology Assessment Manual (MCD-53)
PRM's 77-4, 78-9, 79-3, 79-8
POM 79-3

i. Energy Requirements

For facilities planning begun after September 30, 1978, an analysis of the operational energy inputs for each alternative considered must be included, with the objective of reducing energy consumption, or increasing recovery, among alternatives.

Re: 40 CFR 35.917-1(d)(9), Appendix E

6.4 Evaluation (Monetary, Environmental, Implementation)

Purpose:

An evaluation of the most feasible alternatives is performed in order to select the most cost-effective and environmentally sound project.

Discussion:

The preceding sections of this chapter provided a systematic guide for reducing the possible alternatives to a manageable number. The alternatives to be evaluated in this section are the most feasible and will be subjected to a more detailed evaluation under the broad categories of monetary, environmental and implementation considerations.

The results of the evaluation will be a comparison of the final alternatives in preparation for public review and the eventual selection of the most cost-effective and environmentally sound project. During this evaluation some of the alternatives may be eliminated from further consideration based upon adverse environmental impacts, high costs, legal complications or other reasons. The reasons for elimination must be stated. The data used in the evaluations must be supported in other sections of the facility plan. Each alternative should be evaluated in sufficient detail and in a similar format to facilitate comparison.

Detailed assistance and instructions for preparing monetary evaluations is given in the Guidance and in Appendix A, 40 CFR Part 35. The environmental impact evaluation must consider both primary and secondary impacts. The secondary impacts (indirect or induced by the project) must be presented and carefully evaluated as they could form the basis for the preparation of an environmental impact statement (see Section 10). The review procedures below highlight the key factors to be considered in the evaluation.

Review Procedures:

Each alternative should be analyzed and evaluated with regard to its relationship or impact upon the subjects below:

a. monetary cost comparison based upon:

- present worth or equivalent annual cost over planning period;
- 15% cost-effectiveness preference for I&A technologies;
- interest rate for present worth calculations as published by U.S. Water Resources Council at the time of initiation of the facility plan;
- all capital and operation and maintenance costs are included in present worth calculations;
- existing facilities considered as sunk costs;
- differential inflation allowance only for land and natural gas;
- interest on capital equipment during construction uniform unless period is longer than 4 years;
- useful life - land--permanent
  structures 30-50 years
  process equipment 15-20 years
  auxiliary equipment 10-15 years;
- salvage value included in present worth calculations.

Note: The regulations (40 CFR 35.917-1(1)) and guidance (PRM 76-3) require that monetary costs are shown in total, and in terms of their full impact on the average citizen served by the facilities and on industry. Itemized costs should show the capital cost of the local share, interest on borrowed capital, sinking fund costs, O&M costs, connection charges, etc. Criteria for identifying "high-cost" alternatives or projects are outlined in PRMs 79-7 and 79-8. The reviewer must insure that the proposed facilities will be affordable by the user.

Re: 40 CFR Part 35.917-1(d), (l), (m)
PRM 76-3, PRM 79-4, PRM 79-7, 79-8
GPFP (MCD-46)

b. environmental impacts (see Section 10);

- both primary and secondary;

- beneficial and adverse;

- irreversible and irretrievable commitments of resources;

- long-term and short-term;

- mitigating measures.

Re: 40 CFR Part 6
PRM 75-26, PRM 76-4, PRM 78-1
GPFP (MCD-46)
Environmental Assessment of Construction Grants Projects (FRD-5)

c. institutional arrangements;

- identify responsible organization for each alternative;

- estimated costs allocated to each jurisdiction;

- resolutions or agreements of implementing agencies accepting the plan.

Re: 40 CFR 35.917-6
GPFP (MCD-46)

d. significant industrial service;

- costs of separate treatment;

- costs of pretreatment followed by municipal treatment;

- future industrial flow allowance.

Re: 40 CFR 35.925-15, Part 403
GPFP (MCD-46)

e. flow and waste reduction measures;

Re: 40 CFR 35.917-1 (d)(2), Appendix A
GPFP (MCD-46)

f. recycling of nutrients, reuse of wastewater.

Re: 40 CFR Part 35 Appendix A

g. sewer system arrangements;

- consideration of onsite and nonconventional alternatives;

- pipe sizes and useful life (20 year limitations);

- limitations on grant funding of collection systems;

- excess or reserve capacity;

- extension into environmentally sensitive areas or other undeveloped lands;

- alternate routings;

- CSO alternatives;

- ocean outfalls.

Re: 40 CFR 35.917-1 (d)(1), .925-13, Appendix A
40 CFR Part 233
GPFP (MCD-46)
PRM 78-9, PRM 79-8

h. method of sludge disposal;

- alternative technologies;

- codisposal options.

Re: 40 CFR 35.917-1(d)(6)
GPFP (MCD-46)
Sludge Treatment and Disposal (EPA-625/4-78-012)

i. location of facilities;

- odors and aesthetics;

- cultural or environmentally sensitive resources (see Section 10);

- relationship to flood plains and wetlands.

Re: 40 CFR Part 6
CPFP (MCD-46)
PRM 76-4, PRM

j. revision of waste load allocations;

Re: 40 CFR 35 Appendix A
GPFP (MCD-46)

k. construction staging;

- excess or reserve capacity,

- modular designs.

Re: 40 CFR Part 35 Appendix A
GPFP (MCD-46)

l. project segmenting;

Re: PRM 75-14

m. flexibility;

- future land requirements for treatment plant expansion or upgrading;

- capability for future wastewater reuse;

- easements and rights-of-way for sewers.

Re: GPFP (MCD-46)

n. reliability;

- capability of maintaining operation during equipment failure or maintenance;

- treatment processes;

- equipment and personnel

Re: GPFP (MCD-46)

o. analysis of primary energy requirements of alternatives;

Re: 40 CFR 35.917-1(d)(9), Appendix E

p. recreation, open space and access to bodies of water afforded by alternatives;

Re: 40 CFR 35.917-1(j)

q. multi-purpose alternatives.

Re: PRM 77-4

7. Plan Selection

7.1 Evaluation and Comparison of Proposals

Purpose and Discussion:

Evaluation of alternatives, comparison and plan selection involve making choices based on costs, environmental impacts and feasibility of implementation. The grantee may select any number of methods to display costs, primary energy requirements and effects of the alternative proposals. Regardless of the display method, the effects should be described, wherever practical, in quantitative terms based on the supporting analyses elsewhere in the plan. Where quantification is not possible, the comparison should be made by brief narrative descriptions.

The end result of the evaluation is a comparative display of alternatives for public presentation and discussion along with an identification of the grantee's preferred plan.

Re: GPFP (MCD-46)

7.2 Views of Public and Concerned Interests on Alternatives

Purpose:

Public participation is required to aid the grantee in selecting a plan which will be cost-effective and have the widest possible public acceptance.

Discussion:

Issues surrounding water quality problems and the large amounts of money needed to solve them often come under attack from varied interests. Although the primary responsibility for water pollution control and abatement rests in governmental agencies, public involvement in the decisions and implementation is necessary and desirable. The intent of public participation is to foster a spirit of openness and a sense of mutual trust between the public and governmental agencies and to give the public a role in decision making efforts to restore and maintain the integrity of the Nation's waters.

All facility planning initiated after February 16, 1979, must include either a basic or full-scale public participation program unless a program exemption is granted by the Regional Administrator. The basic public participation program will be used for most projects and includes the tasks as listed in 40 CFR 35.917-5(b). A full-scale public participation program is required for projects including preparation of an Environmental Impact Statement, where advanced wastewater treatment levels are required, or where particularly significant effects on matters of citizen concern are possible (as defined in 40 CFR 35.917-5(c)(iii)). A full-scale public participation program requires hiring a public participation coordinator, establishing an advisory group and holding an additional public meeting plus all of the tasks included in the basic program. Upon written request of the grantee, the Regional Administrator may exempt projects in which only minor upgrading of treatment works or minor sewer rehabilitation is anticipated. Before granting a public participation program exemption, a notice of intent to waive program requirements must be issued 30 days in advance, and consideration given to comments received. Projects granted a program exemption must still hold one public hearing and publicly disclose project costs during facility planning. A final responsiveness summary is included in the facility plan to discuss public participation efforts during planning.

Review Procedures:

Insure that a public participation program appropriate to the project has been adequately followed during preparation of the facilities plan.

The following are minimum requirements applicable to both the basic and full scale programs, except where noted:

a. a public information program was maintained throughout the facilities planning process;

b. the public was notified and consulted during the development of the plan of study;

c. an outline of the public participation program was submitted with the Step 1 grant application;

d. a public participation work plan was submitted 45 days after grant acceptance;

e. at least two public meetings were held, with proper advance notification, one early in the planning process, and a second prior to plan selection;

f. responsiveness summaries were prepared and distributed following each public meeting; adverse or significant views were addressed and incorporated into the facility plan, including the addressing of servicing of areas where minority groups live but where there has not been service by sewers;

g. a public hearing, with proper advance notice, was held prior to final adoption of the facilities plan;

h. a final responsiveness summary is included in the facilities plan;

i. for a full scale program, a public participation coordinator was designated, and an advisory group established, at the time of grant acceptance.

Re: 40 CFR 35.917-1(g), .917-5
40 CFR Part 25
44 FR 34, pp. 10300-10304
GPFP (MCD-46), Municipal Wastewater Management - Public Involvement Activities Guide (FRD-7)
PRM 75-32

7.3 Selected Plan (major feature summary) and Reasons for Selection

Purpose and Discussion:

Following the public meeting or hearing, the alternatives are reevaluated recognizing any new information gained during public review and noting those most acceptable to a broad range of public interests. The plan is then selected based on reevaluation of tradeoffs.

The selected plan, its major features, and reasons for selection are presented in summary form for clarity and the convenience of reviewers.

Review Procedures:

Review the summary for inclusion of:

a. major features;

b. clear explanation and justification for plan selection.

Re: 40 CFR 35.917-1 (a), (b), 40 CFR 6.506
GPFP (MCD-46)

7.4 Environmental Impacts of Selected Plan

Purpose:

The primary and secondary environmental impacts of the selected plan are presented in summary form and specific issues are addressed as required by the National Environmental Policy Act (NEPA) and other environmental and cultural resource laws.

Discussion:

The same issues and review procedures covered in Section 6, alternatives, are addressed in the selected plan. However, in review of the selected plan, they are analyzed in greater detail. Special note should be made by the reviewer of impacts upon cultural or environmentally sensitive resources as these require special procedures and considerations (see Section 10).

The discussion of environmental impacts of the proposed project must be sufficient to constitute an environmental information document for utilization by the State, or EPA in preparing an environmental assessment. This must be adequate to serve as a basis for EPA's decision to issue a finding of no significant impact (FNSI) or an EIS for the proposed action.

The grantee should discuss in this or other sections the mitigating measures which will be employed in the design and construction phases of the project to minimize adverse effects. If the adverse impacts are unacceptable, the reviewer should contact the grantee (through the State agency) and discuss mitigating measures which will make the selected plan acceptable.

Review Procedures:

The summary should include adequate discussion of:

a. any unavoidable adverse impacts resulting from the proposed project (special note of cultural or environmentally sensitive resources);

b. the relationship between local short-term uses of the environment and the maintenance and enhancement of long-term productivity including:

   - tradeoffs between short-term environmental gains at the expense of long-term gains, and vice versa;

   - the possibility of proposed action foreclosing future options;

   - the effects which narrow the range of future uses of land and water resources or pose long-term risks to health or safety;

c. irreversible and irretrievable commitments of resources, including an evaluation of the extent to which the proposed project requires commitment of construction materials, man-hours, and other resources, and curtails the range of future uses of land and water resources;

d. steps to minimize adverse effects (e.g. erosion control measures).

Re: 40 CFR 6.506
GPFP (MCD-46)
PRM 75-26; PRM 78-1

7.5 Energy Considerations

Aspects of the selected plan which conserve energy, recover energy, or reduce energy consumption, as long as they are cost-effective, should be described. For those systems which claim to use innovative processes or techniques on the basis of energy reduction criterion, the plan should contain a detailed energy analysis.

Re: 40 CFR 35.917-1(d)(9)
40 CFR 35 Appendix E

7.6 Recreational Opportunities

For facilities planning begun after September 30, 1978, the opportunities for recreation, open space and access to bodies of water potentially available under the selected plan should be described. Any coordination measures with Federal, State and local recreational programs and with the recreational elements of approved areawide WQM plans should also be described.

Re: 40 CFR 35.917-1 (j)

8. Cost Estimates, Preliminary Designs

8.1 Description of Design

Purpose and Discussion:

The preliminary design of the selected plan is presented to demonstrate that sound engineering principles have been employed, that all major components of the system have been included and that an adequate basis has been developed for the cost estimate, and the facilities are capable of performing as planned. The detail for the preliminary design may vary from project to project depending on the complexity of the project. For example, standard package plants will not require the same degree of detail as a pure oxygen system with phosphate removal and sludge incineration.

Review Procedures:

Items in a preliminary design might include:

a. a schematic flow diagram;

b. unit processes and sizes;

c. plant site plans, and site availability;

d. interceptor and trunk sewer routings;

e. design criteria, including:

- detention times;

- overflow rates;

- other.

Re: 40 CFR 35.917-1(a), (b), (m)
GPFP (MCD-46), PRM

8.2 Summary of Cost Estimates

Purpose:

Cost estimates, including the impact on the average user, for final design, preparation of plans and specification, and construction of the treatment facilities are included to insure that Step 2 and Step 3 grant requests are based upon inclusion of major components of the selected plan.

Discussion:

As a part of its program responsibility, EPA is required to forecast future funding requirements for the design and construction of wastewater treatment facilities. The cost estimates and schedules of completion provided in this section help fulfill those responsibilities. The reviewer should be aware of these requirements and of the procedures for recording the estimated costs into the GICS process. The grantee is required to submit these estimates in an appropriate format entitled "Summary of Costs of Planned Treatment Works Scheduled by Project and Category" (refer to Appendix B).

Review Procedures:

Review cost estimates to determine that:

a. costs for the construction of the facilities are reasonable (PRM 79-8) and include both capital and operation and maintenance cost (including cost of proposed sites);

b. costs are presented in the required format;

c. schedules for the completion of related work have been included.

Re: 40 CFR 35.917-1(1), (m)
GPFP (MCD-46)
PRM 76-3, PRM 79-8

9. Arrangements for Implementation

9.1 Institutional Responsibilities

Purpose:

The responsibilities for plan implementation are identified to demonstrate recognition by the involved jurisdictions of the steps necessary for initiation and completion of the project.

Discussion:

The responsibility for the implementation of the selected plan may rest with one or more agencies. In the case of a single agency, it must have the authority under State law (or the ability to obtain such authority) to finance, design, construct, operate and maintain the proposed facilities. For regional solutions, several agencies may share the responsibility for plan imlementation and each must have the authority and ability to carry out its functions. An example of this is where one agency constructs the treatment plant to serve the entire planning area, and the smaller jurisdictions construct interceptor, trunk and lateral sewers.

In the regional solutions, one or more jurisdictions in the planning area may either oppose or fail to approve the plan. The grantee should discuss the appropriate measures required to reach agreement among the jurisdictions. While final agreement is desirable prior to the submission of the facility plan for review, the State and EPA may approve it even in the absence of such agreement, provided that assurance is made that the plan will be properly implemented.

Review Procedures:

For implementation, the plan should:

a. identify each agency or jurisdiction and its responsibility;

b. show that each agency has ability and authority (or reasonable expectation to obtain such authority) under State law to finance, design, construct, operate and maintain the proposed facilities;

c. identify any referendums or public elections necessary for plan implementation;

d. include adopted resolutions of plan acceptance and agreements among jurisdictions;

e. include financial arrangements which obligate each jurisdiction to enforce the requirements for user charges, industrial cost recovery, sewer system rehabilitation and sewer use ordinances;

f. identify jurisdictions which oppose or have failed to approve the plan and describe steps necessary to reach agreement.

Re: 40 CFR 35.917-6

9.2 Implementation Steps

Note: To demonstrate recognition of the proposed project and an orderly program for implementing it, the grantee is to present a step by step schedule of each specific action. The time schedule should correspond with schedules in the NPDES permit. Differences must be resolved.

Re: 40 CFR 35.917-1(a)

9.3 Operation and Maintenance

Purpose and Discussion:

The facility plan should include the minimum information needed to perform cost-effectiveness computations, e.g. discussions of staffing, management, training, sampling, laboratory facilities, etc. As a part of the Step 3 grant application, a detailed Plan of Operation must be submitted.

Re: GPFP (MCD-46), PRM 77-3

9.4 Financial Requirements

Purpose:

A financial program is described to identify the sources of funds for implementing the proposed project.

Discussion:

The proposed project funding will generally consist of three parts, namely the Federal grant, the State grant and the local share. When a State grant is shown as a source of funding, the reviewer should confirm that the State grant program remains in effect. Generally, the local funding will be derived from the sale of bonds or industrial contributions. Funds must be made available to retire these bonds over a period of years and to provide for operation and maintenance of the facility. The customary method of obtaining these funds is to proportion charges to the various classes of users (40 CFR 35.929) and to recover capital costs from industrial users (40 CFR 35.928).

Where small communities are involved in the facilities plan, the reviewer is to insure that the economic impacts evaluation identified in PRM 79-8 has been made, and that the community has made the determination that it will be able to afford the local share.

Total project costs, as well as the financial impacts of the project on a typical residential customer, must be publicly displayed and presented at a public meeting. Such financial impacts must include total monthly or annual costs per customer including pre-project debt retirement, project debt retirement, O&M costs (user charges), connection charges, or other costs imposed on users (PRM 76-3).

As a requirement for a Step 2 grant, the grantee must furnish evidence of compliance with the user charge and industrial cost recovery (UC/ICR) provisions of the regulations. Satisfactory evidence of compliance for a Step 2 grant are letters from the grantee and major industrial users expressing intent to comply with these provisions. A detailed UC/ICR program must be submitted and approved by EPA as a part of the Step 3 grant application.

Review Procedures:

Review the financial program to determine that:

a. all project costs, including engineering, construction, lands and rights-of-way, legal and fixed costs have been estimated;

b. sources of funds are identified, acceptable and sufficient;

c. State grants programs are applicable;

d. the grantee has reasonable expectation of obtaining letters of intent to comply with industrial cost recovery programs as required for a Step 2 grant.

Re: 40 CFR 35.925-11, .928, .929, Appendix B
PRM 79-8

9.5 Pretreatment Program

Pretreatment programs are intended to control toxics from non-domestic sources and to provide for the reclamation and reuse of wastes wherever practicable. Therefore, the particular objectives at present are: preventing the introduction of pollutants into POTWs which will interfer with treatment works operation and/or disposal or use of municipal sludge; preventing the introduction of pollutants into POTWs which will pass through treatment works into receiving waters, the atmosphere or which will be otherwise harmful; and employing opportunities to recycle and to reclaim the wastewater and the sludge produced by wastewater treatment.

Development of a pretreatment program is required where the municipal facilities serve or will serve industries subject to

pretreatment standards under CWA. Implementation of pretreatment programs is divided into two phases because of the ongoing activities of implementing standards as they are promulgated. Phase I of the program, therefore, is the basic skeletal structure and Phase II is the insertion as promulgated of the specific standard.

Section C.1 of Chapter III lists important dates applicable to pretreatment requirements contingent on the award of Step 2 and Step 3 grants. For existing steps 1, 2 or 3 grants funding may be through grant amendment.

A complete and approvable pretreatment program will include the following:

a. Phase I

- An industrial survey identifying system users by type and location of industry and the character and volume of pollutants discharged;

- An evaluation of the legal authority for control and enforcement, including adequacy of enabling legislation and selection of mechanisms to be used (ordinances etc.);

- An evaluation of revenue sources and financial programs to insure adequate funding to carry out the pretreatment program;

- A determination of technical information needed to support development of an industrial waste enforcement mechanism to insure the compliance with NPDES permit conditions;

- Design of an enforcement monitoring program;

- Determination of pollutant removals in existing treatment facilities;

- A preliminary determination of monitoring equipment required at the treatment facilities;

- Determination of tolerance of the treatment facilities to toxic pollutants; and

- A preliminary determination of the municipal facilities needed for monitoring or analysis of industrial wastes.

b. Phase II

Incorporating standards for industrial categories into the pretreatment program to ensure implementation and to improve effectiveness.

Re: 40 CFR 35.907, .917-1(k)
40 CFR Part 403

10. Summary of Environmental Considerations

Purpose:

The summary of environmental considerations serves two objectives: (1) satisfaction of NEPA requirements, and (2) ensurance that environmental information is considered in the selection of a proposed plan. The summary is primarily intended for those reviewers concerned with environmental impacts, and should reference other parts of the facilities plan wherein detailed environmental impact analyses are included.

Discussion:

The facility plan must evaluate environmental as well as engineering, monetary and institutional impacts. Adverse impacts in any of these categories may be reason for plan revision, the selection of another alternative, or the incorporation into the design and construction phases of measures which will minimize the adverse impacts or problems.

Throughout the entire facility plan preparation, the reviewer should work with the grantee in satisfying all the regulatory requirements and selecting the most acceptable plan. The facility plan may be reviewed informally or in sections by the reviewer as an aid to the grantee, and suggested changes may be incorporated with minimum delay and formality.

After all discussions and revisions are completed, the reviewer conducts a formal "environmental review". Based upon a review of the environmental information presented in the facility plan, or the environmental assessment submitted by the State, EPA must make one of two decisions:

- issue a finding of no significant impact (FNSI) for the project, supported by an appropriate environmental assessment document;

- issue a Notice of Intent to prepare an environmental impact statement (EIS) for the project.

In order to arrive at one of the decisions described above, many reviewers within EPA and outside of EPA must evaluate the proposed project and make their recommendations. The facility plan must include pertinent environmental information to assist in that decision.

As described in the Guidance for Preparing a Facility Plan, the summary of environmental considerations should cover the following topics, with appropriate reference to portions of the plan wherein more detailed information is provided:

10.1 Existing Environmental Conditions

10.2 Future Environment Without the Project

10.3 Evaluation of Alternatives

10.4 Environmental Effects of the Selected Plan

Section 10.5 below includes procedures to be followed during review of the environmental information document, as integrated within the facilities plan, and interagency coordination requirements.

10.5 Interacting Environmental Considerations

a. Criteria for Determining when to Prepare an EIS

The responsible official at EPA must assure that an EIS will be issued where proposed facilities will result in any of the following conditions:

(1) significant, induced changes in land use concentrations or distributions, including (but not limited to) such factors as: increased developmental pressure on vacant land; accelerated changes in population growth or density; or deleterious changes in demand or availability of energy.

(2) significant, adverse effects, either direct or indirect, on wetlands.

(3) significant effects, direct or indirect, on the habitat of State or Federally listed threatened or endangered species.

(4) direct or indirect changes which significantly displace population, deface existing residential areas, adversely affect floodplains, or adversely affect significant amounts of prime or unique agricultural land or farm operations.

(5) adverse effects on parklands or other areas of recognized scenic, recreational, archeological or historic value.

(6) direct or indirect, adverse effects on local air quality, surface or groundwater quality or quantity, or the habitats of fish and wildlife.

(7) treated effluent will be discharged into a water body where the present classification is considered too low to protect current or recent uses, and effluent quality may be considered insufficient to meet the requirements of these uses.

(8) the environmental impact is likely to be highly controversial.

Also, where a full-scale public participation program is required, the responsible official should consider preparing an EIS.

Re: 40 CFR 6.505, PRM 75-26

b. Required Coordination and Consultation

During the environmental review process, the responsible official must insure that the various laws and executive orders, independent of NEPA, are followed throug'. appropriate coordination.

(1) Historical and Archeological Sites

EPA has the responsibility under the procedures of the Advisory Council on Historic Preservation to insure that archeological and cultural resources are identified in the primary impact areas of the project. The investigation to identify resources is carried out by the grantee. The exact procedures may vary from State to State, and the reviewer should be familiar with the requirements of his particular State.

Generally, however, the grantee should contact the State Historic Preservation Officer (SHPO) as soon as the project scope and general location is known. The SHPO may be able to identify cultural or historic sites in the area which may aid in selecting the best alternative. The SHPO may also indicate that the area is quite sensitive and that a professionally qualified archeologist should be employed to identify the resources. In the event that the project is limited to previously disturbed areas, the SHPO may advise that the project will not affect any cultural resources and that no further investigations are required.

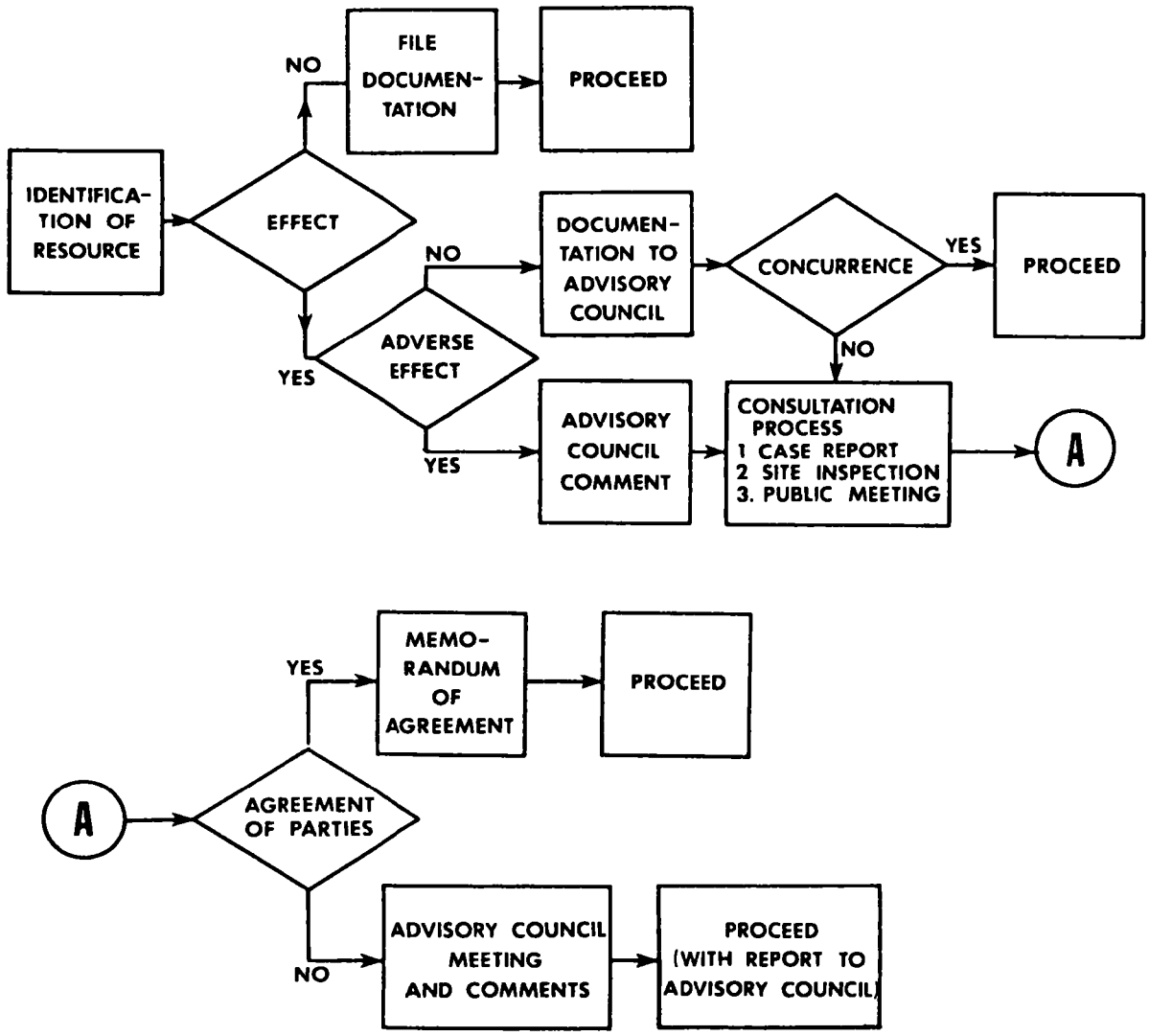
In many cases the SHPO or grantee may be able to review the National Register of Historic Places and identify resources in the project area. A professional in this field may need to be employed to identify resources which are eligible for inclusion in the National Register. The grantee and his professional representative must prepare a report in consultation with the SHPO stating whether the project will have any effect upon the cultural resources identified.

Upon receiving this report, and in the case of a resource eligible for listing in the National Register, EPA should immediately contact the Department of the Interior to determine if the resource is, in fact, eligible for inclusion.

For all cultural resources identified, the grantee, his professional representative, and the SHPO must prepare a report for review and decision by EPA concerning the effect the project may have on that resource. Specifically, the following procedures should be followed, as applicable:

(a) project has no effect on identified resources--applicant to include views of SHPO showing concurrence; exchange of correspondence to be appended to report;

FIGURE IV-3. Procedures for Review of Cultural Resources.



(b) project has effect on identified resources--apply Advisory Council Criteria of adverse effect;

(c) if the application of adverse effect criteria results in the conclusion by the grantee's professional expert, and is agreed to by the SHPO, that the effect is not adverse, the documentation supporting that conclusion must be forwarded to the Advisory Council for concurrence. If Advisory Council concurrence is received, the project may proceed as proposed with the application of any mitigating criteria which may have been recommended;

(d) if the application of the adverse effect criteria results in the conclusion that the project will have an adverse effect, the comments of the Advisory Council must be obtained and a consultation process is set up;

(e) the consultation process involves:

- onsite inspections
- public information meetings
- considerations of alternatives
- avoidance of adverse effects
- mitigation of adverse effects;

(f) generally, the above procedures will be sufficient to resolve adverse effects; specific conditions of resolution are contained in a Memorandum of Agreement between EPA, the Advisory Council, and the SHPO.

It is the responsibility of the construction grants reviewer to insure that the above procedures are, or have been, carried out. Letters, reports, or other documents in support of

the above procedures are to be appended to the facility plan. The final decision as to the effect of a project on historic and archeological resources rests with EPA under the Advisory Council Procedures.

Re: 36 CFR Part 63, Part 64, Part 66, Part 800
40 CFR 6.301
40 CFR 30.405-7, -8
EO 11593, PRM 75-27, PRM

(2) Environmentally Sensitive Areas

Whenever a proposed project will affect any of these environmentally sensitive resources, the consultations below must be carried out. The impact of the project upon these resources should be discussed by the grantee in his environmental information document. EPA has the responsibility for carrying out these procedures, but the grantee may be encouraged to do so in preparing the facility plan. Whether the project will have a harmful effect on these resources requires prudent judgment on the part of the reviewer.

The consultations below, as applicable, must be carried out before the facility plan may be approved.

(a) Wetlands

Consult with:

- Department of the Interior

- Department of Commerce

- U.S. Army Corps of Engineers

Document consultation and obtain written comments from each of these agencies where appropriate. Where wetlands may be affected, adverse impacts must be avoided to the extent practicable and the responsible official must prepare a floodplains/wetlands assessment as part of the environmental assessment or EIS.

Re: 40 CFR 6.302(a)
EO 11990, PRM 76-4
EPA's Statement of Procedures on Floodplain Management and Wetlands Protection (6/5/79)

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AVAILABLE

DIGITALLY

(b) Flood Plains

Refer to Flood Hazard Boundary Maps or Flood Insurance Rate Maps prepared by DHUD and determine if grantee is or must be participating in the flood insurance program; determine if proposed project satisfies applicable flood plain statutes and regulations and EPA guidance with regard to location, elevation or protection of structures. Where floodplains may be affected, adverse impacts associated with direct and indirect development should be avoided to the extent possible and a floodplains/wetlands assessment must be included in the environmental assessment or EIS.

Re: 40 CFR 6.302(b)
EO 11988, PRM 76-5
EPA's Statement of Procedures on Floodplain Management and Wetlands Protection (6/5/79)

(c) Agricultural Lands

Determine whether there are significant agricultural lands in the area and the direct and indirect effects of the selected plan on these lands. Identify means to avoid or mitigate adverse impacts.

Re: 40 CFR 6.302(c)
EPA's Policy to Protect Environmentally Significant Agricultural Lands (9/8/78)

(d) Coastal Zones

Consult with:

- Appropriate State Office

- Department of Commerce

Document consultation and obtain written comments from each of these agencies where appropriate. If action significantly affects coastal zone area, and State has an approved coastal zone management program, a consistency determination must be sought in accordance with procedures promulgated by the Office of Coastal Zone Management.

Re: 15 CFR Part 930
40 CFR 6.302(d)

(e) Wild and Scenic Rivers

Consult with:

- Appropriate State Office and
- Department of the Interior, or
- Department of Agriculture where National forest lands are involved.

Document consultation and obtain written comments from each of these agencies whenever appropriate. Where the proposed action may have a direct and adverse impact, the impact must be avoided; if the impact cannot be avoided, no action may be taken without notification of the Secretary of Interior and Congress 60 days in advance of taking the action.

Re: 40 CFR 6.302(3)

(f) Fish and Wildlife

If the project will result in the control or structural modification of any stream or body of water, consult with:

- U.S. Fish and Wildlife Service, Department of the Interior
- Appropriate State agency

Document consultation and obtain written comments from each of these agencies where appropriate.

Re: 40 CFR 6.302(f)

(g) Threatened or Endangered Species

Consult with:

- U.S. Fish and Wildlife Service

- National Marine Fisheries Service

- Appropriate State agency

Where the proposed action will have an adverse impact on listed species or habitat, mitigation measures must be undertaken.

Re: 40 CFR 6.302(g)
50 CFR Part 402

(3) Air Quality

The Clean Air Act requires all Federally assisted activities to conform to any applicable State Air Quality Implementation Plan (SIP). The responsible official must assess the extent of direct or indirect increases in emissions and resultant change in air quality for any proposed action which may significantly affect air quality. Where applicable:

(a) consult with State or local agencies having responsibility for SIP development and implementation, to ascertain the conformity of the action to the SIP, including compliance with applicable emission limitations or standards.

(b) submit the conformity determination to the designated lead State or local agency for concurrence. Lack of response by the lead agency during the 30 day FNSI and 45 day draft EIS review periods will be interpreted as concurrence.

(c) EPA must provide in the FNSI or EIS a response to non-concurrence, including the basis on which conformity to the SIP will be assured. If EPA finds that non-concurrence is unjustified, then an explanation must be included in the FNSI or EIS.

Re: 40 CFR 6.303

c. Environmental Review

The environmental review by EPA is performed for application of the criteria to determine whether an EIS is warranted. Where deficiencies are found, they shall be identified in writing by EPA, and must be corrected before approval or determination of EIS preparation. The review by the responsible official of EPA, is based on:

(1) a complete facilities plan and environmental information document, where review of the facilities plan has not been delegated to the State.

(2) the grantee's environmental information document and State's preliminary environmental assessment, where the State has been delegated authority for facilities plan review.

(3) other documentation considered necessary by the responsible official, or submitted by the State where delegated, adequate to allow an EIS determination by EPA.

Re: 40 CFR 6.506(d)

d. Finding of No Significant Impact (FNSI)

Where, after completion of the environmental review, a determination is made that no EIS is warranted, the responsible official must prepare and publicly issue a FNSI. The decision not to prepare an EIS must be substantiated by an environmental assessment, which shall be incorporated into, or attached to, the FNSI. The assessment provides support for the determination that the proposed action will not have a significant adverse impact on the environment. It is prepared by EPA, either based on the review of the grantee's environmental information document and other data as appropriate, or based on the State's environmental assessment or other supporting documentation, where delegated.

When a FNSI and environmental assessment have been prepared for the facilities plan, additional grant awards may proceed without further FNSI preparation, unless a determination is made that significant changes have occurred from the project as described in the facilities plan.

Once a decision is made, and a FNSI issued for the proposed action, the following procedures are required with respect to the facilities plan:

(1) notify the grantee and State in writing of approval of the facilities plan;

(2) identify any special conditions, resulting from the environmental review, which will be contingent on any subsequent grant awards;

(3) advise the grantee that approval of the facilities plan does not obligate the U.S. Government to award related grants, and that the grantee will not receive funding for Step 2 design until he has applied for and received a Step 2 grant;

(4) update project information and cost data in the Grants Information and Control System (GICS, see Appendix B).

Re: 40 CFR 6.506(e), (f)

e. Notice of Intent

If upon completion of the environmental review, it is determined that significant adverse impacts will be associated with the proposed project, and cannot be satisfactorily mitigated, the responsible official will determine that an EIS is warranted. A notice of intent to prepare an EIS shall then be published in the Federal Register and otherwise released for public notification. In this case, the reviewer should contact the grantee and State to advise them of this decision and the implications for the project.

Re: 40 CFR 6.506(g)

f. EIS Preparation

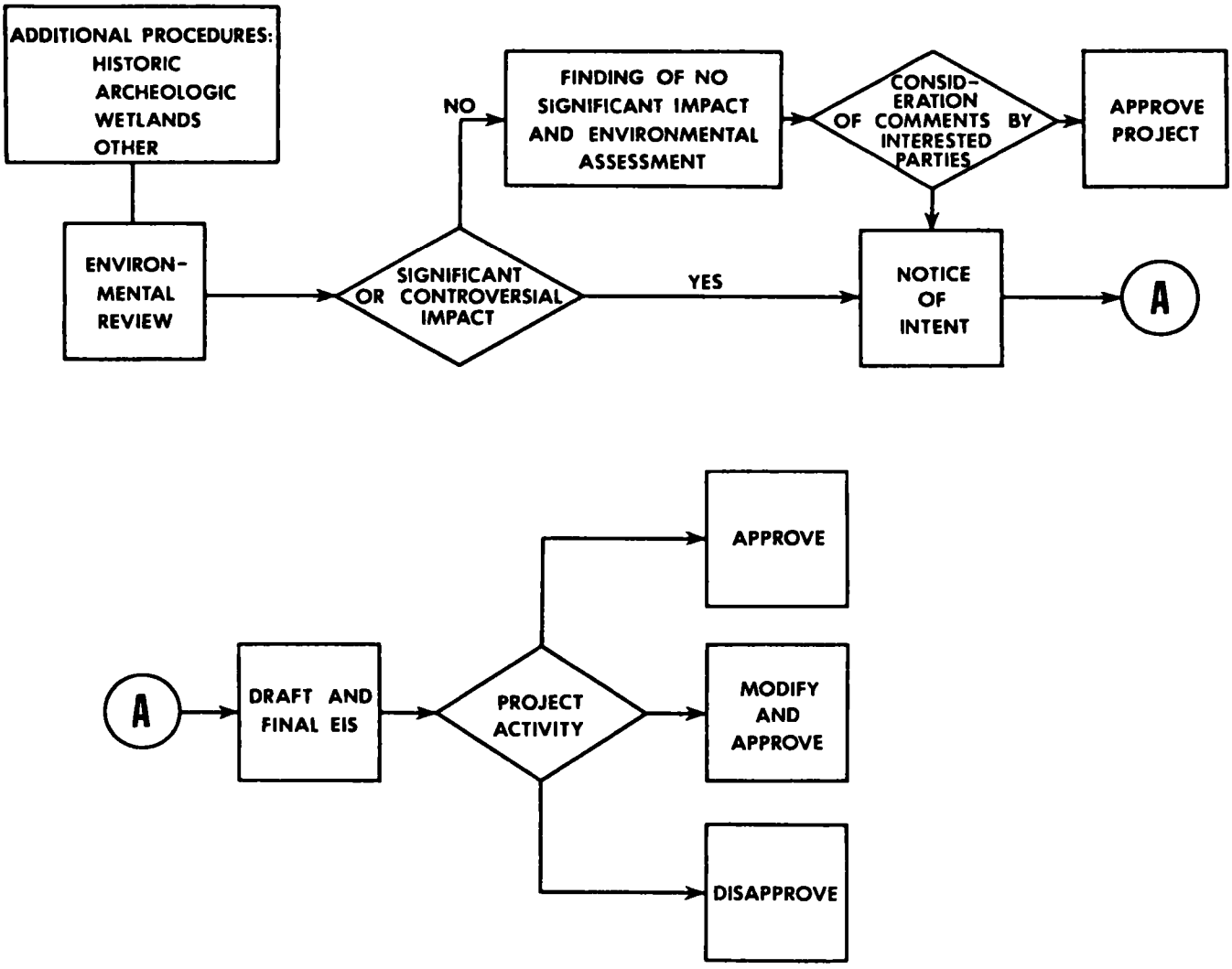
Not later than 30 days after publication of the notice of intent, the responsible official of EPA will determine the scope of the EIS in consultation with the State and local parties affected, at a "scoping" meeting.

EPA will prepare the EIS either by direct use of agency staff, by contract with a qualifieid consultant, or by utilizing the joint EIS process ("piggybacking") in which the grantee enters into a contract with a qualified consultant.

The regulations (40 CFR Part 6) outline detailed procedures and criteria to be followed in the process of EIS preparation. However, with respect to the facilities plan, a Step 2 grant may not be awarded until a final EIS has been prepared and all regulatory requirements have been met. After waiver approval has been obtained, action may continue on discrete segments of the project. The resulting modified project will have to be rereviewed at the appropriate stage of the facility planning process. In addition, the EIS or FNSI may dictate requirements that can only be fulfilled by placing certain conditions on the Step 2 grant award.

Re: 40 CFR 6.506(h), (i), 35.925-8(b)
PRM 75-31

Figure IV-4. Procedures for NEPA Review.



See Appendix A for overall schematic diagram of Construction Grants Process.

CHAPTER V

STEP 2 GRANT PROCESSING

A. INTRODUCTION

B. SCHEMATIC FLOW DIAGRAM

C. APPLICATION CONTENTS

D. FACILITY PLAN APPROVAL

E. ADMINISTRATIVE REVIEW

F. COMBINATION STEP 2 + 3 GRANTS

G. GRANT AWARD PROCEDURES

H. PREPARATION OF PLANS AND SPECIFICATIONS

I. PREDESIGN CONFERENCE

J. REVIEW OF PLANS AND SPECIFICATIONS

K. O & M FACILITY/TRAINING GRANTS

A. INTRODUCTION

This chapter describes the contents of and review procedures for processing of a Step 2 grant application. It begins with the receipt of the application package and concludes with the review and approval of the plans and specifications.

Section B, Schematic Flow Diagram, visually places this chapter in the proper sequence and indicates the major activities of the Step 2 application and review.

Section C, Application Contents, provides a ready listing of the materials which are contained in an application package.

Section D, Facility Plan Approval, restates the requirements for an approved facility plan as a part of the Step 2 application.

Section E, Administrative Review, describes the procedures involved in reviewing priority list compliance and certification, application form, contracts and subagreements and assurances.

Section F, Combination Step 2 + 3 Grants, concerns the special case grants for combined Step 2 + 3 projects.

Section G, Grant Award Procedures, describes the action required on the part of EPA in making the grant offer.

Section H, Predesign Activities, discusses the need to work with the grantee before and during the preparation of Plans and Specifications.

Section I, Predesign Conference, describes the administrative and technical considerations to be discussed with the grantee at the conference prior to the preparation of plans and specifications.

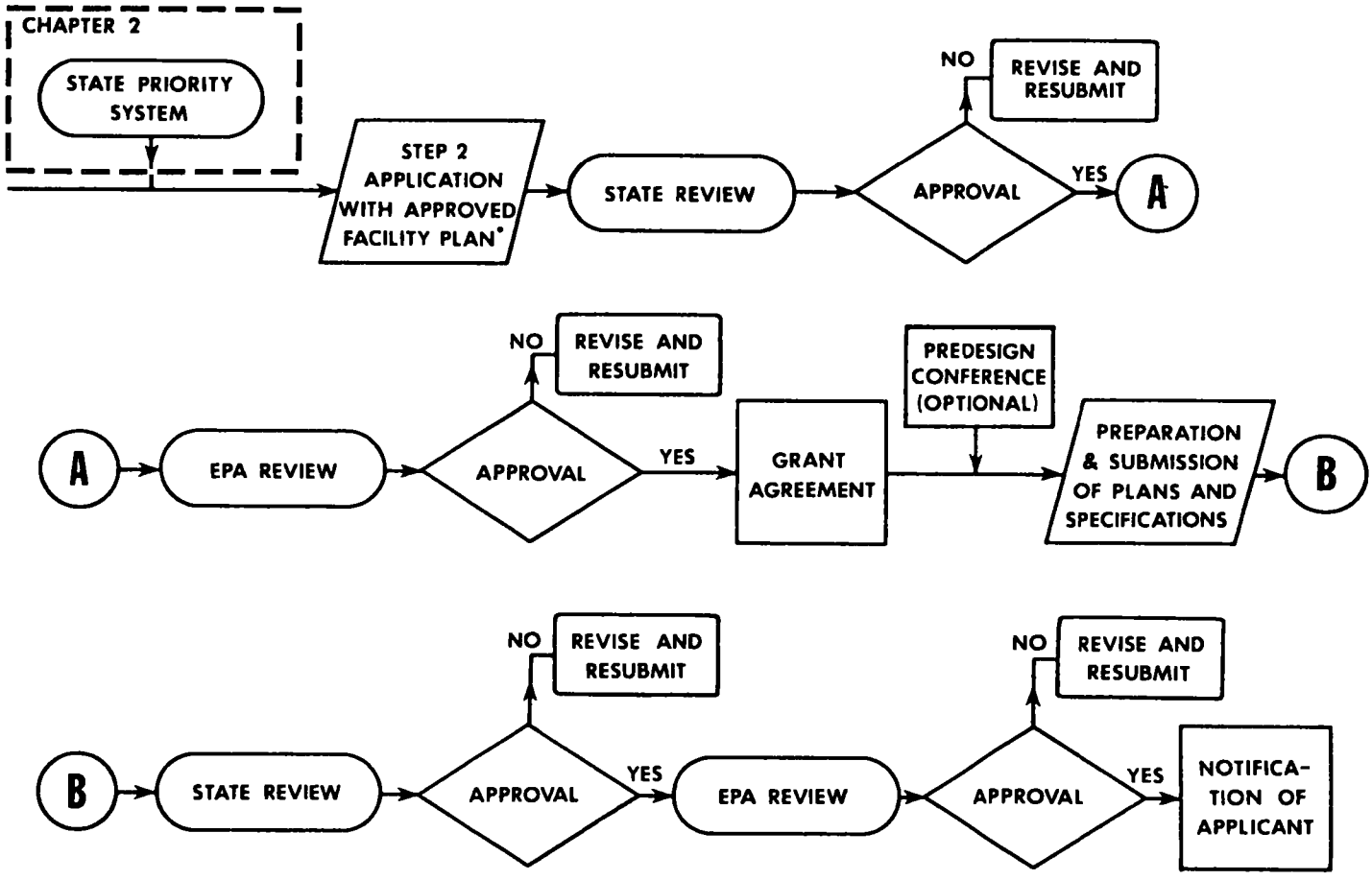
Section J, Review of Plans and Specifications, describes the specific information to be reviewed in the plans and specifications. Technical considerations are included to enable the reviewer to adequately evaluate the Step 2 treatment works design.

Section K, O & M Facility/Training Grants, concerns special grants for training facilities and programs.

The technical and administrative reviews are to be performed simultaneously wherever possible. When items are missing or explanations are necessary, the review is to proceed as far as possible to insure quick action once the items are corrected.

B. SCHEMATIC FLOW DIAGRAM

The flow diagram below visually places this chapter in the proper sequence and indicates its relationship to other chapters. The diagram includes the general functions of the Step 2 grant process as performed by the applicant, State and EPA.



*REVIEW AND APPROVAL OF FACILITY PLAN COVERED IN CHAPTER 4

C. APPLICATION CONTENTS

Below are listed the basic items to be included in an application package. The items are listed here for quick reference, while the review procedures for each item are described later. The reviewer is to make a cursory review to insure that all items are included, that all applicable portions of the forms are completed, and that the documents are signed by the appropriate officials. If items are missing or explanations are necessary, the applicant is to be contacted through the State but the review is to proceed as far as possible to insure quick action when the required material or information is received.

1. Facility Plan (complete and approved) with required agencies comments and approvals (OMB A-95);

2. State Priority Certification, EPA Form 5700-28;

3. Application, EPA Form 5700-32, including authorizing resolution and statement regarding availability of the proposed site;

4. Proposed subagreements (generally A&E contracts) or explanation of method of awarding proposal subagreements, including compliance with MBE policy;

5. A Value Engineering (VE) proposal where the Step 3 total construction costs are expected to be $5 million or more;

6. Proposed or executed intermunicipal agreements where two or more jurisdictions are involved;

7. Project progress and payment schedule;

8. Evidence of compliance where applicable with: user charge and industrial cost recovery requirements, Federal facilities restrictions, sewer use ordinance requirements, relocation requirements, and other Federal regulations, including civil rights compliance forms 4700-1 and 4700-4.

9. Submissions for compliance with pretreatment requirements, where applicable;

10. A public participation work plan, where applicable;

Re: 40 CFR 35.907, .917-6, .920-2(b), .920-3(b), .925-3, .925-8, .925-9, .925-11, .926, .927-4, .935-9.
40 CFR 30.305, .315, .405-2, Subpart C.
PRM _____

D. FACILITY PLAN APPROVAL

The technical review of a facility plan is described in Chapter IV of this Handbook. The grantee was notified in writing of his facility plan approval and need not resubmit it. The reviewer must confirm in the project files that the facility plan was approved by EPA. Also, he must review the comments of Federal, State and local agencies under the OMB A-95 review process to identify specific contingencies recommended for inclusion during Step 2 work. These may include such aspects as the need to perform an archeological survey at proposed construction sites prior to completion of design. If the Step 2 project has changed substantially from that proposed in the facilities plan, the Regional Administrator may require that the facilities plan be amended and resubmitted by the applicant for appropriate re-review.

Re: 40 CFR 35 35.917-8, -9, .920-3 (b) (1), (4), .925-1.

E. ADMINISTRATIVE REVIEW

1. Priority List Compliance and Certification

Purpose:

The State agency is required to certify each project as entitled to priority for grant funds in accordance with the State priority system and the project priority list.

Discussion:

Chapter II discusses the State priority system and list. Once the system and annual list have been approved by EPA, each project is certified by the State as being entitled to priority for a grant over all other projects below it on the priority list (EPA Form 5700-28, see Appendix B).

A State may elect to set aside up to ten percent of its yearly allotment to fund Step 1 and Step 2 projects not on the current priority list. When such projects are certified, the certification must signify that the grant is to be made from that reserve allotment.

"Grant applications are considered received by EPA only when complete and upon official receipt of the State priority certification document."

Review Procedures:

Review State Priority Certification to determine that:

a. the name, project number and description of the project agree with the application, form 5700-32, and the approved State priority list;

b. the form includes the signature of the authorized State official;

c. the award of grant assistance for the project will not exceed the State's allotment, including reallotments;

d. the award of grant assistance will not jeopardize the funding of any projects of higher priority;

e. the State has included a statement to the effect that all jurisdictions within the facility planning area have been notified of State and EPA approval of the facility plan;

f. reserve funds are identified where used.

Re: 40 CFR 35.915, .915-1, .920-2, .925-3, .925-4
PRM 75-16

2. Application Form

Purpose:

EPA Form 5700-32 is the formal application document and sets forth the information necessary to obtain a construction grant. Additionally, the application contains "assurances" from the applicant which satisfy several statutory requirements.

Discussion:

The application for a Step 2 grant is submitted by the authorized representative of the jurisdictions included in the approved facility plan. In all cases, the applicant must have the legal authority to design, finance, construct, operate, and maintain any resulting wastewater treatment facilities.

The application form is used to request an initial grant, make amendments, and to request supplemental grants. The form (see Appendix B) contains instructions for completion of each of the five parts. Part II, Section B, requires information concerning the project site. For a Step 2 application, a statement regarding availability of the proposed site must be included. If the availability of easements has not been determined, the applicant is to be informed of the need to accomplish preliminary easement work concurrent with other Step 2 activities. (Sites and easements may be acquired if they are not potentially eligible costs under Step 3.) Other site information (plot plan, soil survey, etc.) may be included where necessary.

The statutes require that the applicant comply with related laws and regulations and give other assurances. Many of these requirements are satisfied for a Step 2 grant when the applicant signs the application and thereby assures and certifies that he will comply with the requirements. However, additional evidence

of compliance with some of these assurances is required from the applicant (see Section E.7). A copy of authorizing resolution designating the signer as the official representative of the applicant (Part V, item 1 of application Form 5700-32) must be included with the application. Any subsequent changes in the authorized official must also be documented by a copy of the resolution authorizing the change.

Review Procedures:

Review application form to determine that:

a. the name, the project number, and the description of project and amount of grant request agree with the State Priority Certification, Form 5700-28, and the approved State priority list;

b. the form is signed by the authorized representative and a copy of the authorizing resolution is attached;

c. a statement regarding availability of the proposed site is attached;

d. information regarding project location, entities involved and cost data corresponds to that in the facility plan and Summary of Costs of Planned Treatment Works Scheduled by Project and Category;

e. all items in the application are complete or marked not applicable (NA);

f. Part III, Section D, Proposed Method of Financing Non-Federal Share, assures that the applicant can successfully fund his share of the project costs.

g. Part V. Assurances, is included with the application: if not the application must be returned to the applicant for inclusion of a signed copy of the Assurances.

Re: 40 CFR 30.315
40 CFR 35.920-2(b), .920-3(b) (2), .925-5
PL 94-488
31 CFR Part 51, Department of Treasury
PRM 77-6

3. Contracts and Subagreements

Purpose:

Contracts or subagreements for personal or professional services are submitted by the applicant and reviewed by both the State and EPA to insure that the scope and nature of the proposed services are sufficient to result in approvable plans and specifications and that the fees and schedules are reasonable.

Discussion:

The personal and professional services covered by the subagreements at the time of Step 2 application submission are generally the consulting engineering services. The regulations state that the application shall include proposed subagreements or an explanation of the intended method of awarding subagreements for performance of any substantial portion of the project work.

The detailed requirements of and procedures for procuring personal or professional services are contained in the regulations, 40 CFR 35.936 & .937 and Appendices C & D. Certain clauses of these regulations (e.g. access) are applicable to subagreements and lower tier subagreements in excess of $10,000. See Figure III-1 (p.III-6) for applicability of specific clauses. The goal oriented policies and procedures regarding MBE set forth in 43 FR 248 contain the responsibilities of EPA, Grantees, Consulting firms, Prime contractors, and MBEs. Subagreements in which the fee is a percentage of construction costs are not acceptable, nor are cost multiplier contracts where profit is included in the multiplier.

Review Procedures:

Review the agreement(s) to determine that:

a. the applicant has complied with 40 CFR 35.936 .937; and (if applicable) .939;

b. the scope of the work is sufficient to prepare approvable plans and specifications; and cost and fee are appropriate to the scope of work;

c. completion schedules are reasonable and in agreement with the facility plan;

d. the applicant has complied with EPA's policy for increased use of minority business enterprises (MBE).

Re: 40 CFR 35.920-3(b)(3), .935-7, .936, .937, .939, .965 and Appendices C & D; 40 CFR 30.605
43 FR 248 pp. 60220-60224

4. Intermunicipal Agreements

Purpose:

Where two or more jurisdictions are involved in facilities development under Federal grants, intermunicipal agreements insure that all jurisdictions will be obligated to comply with financial arrangements and procedural requirements under the grants.

Discussion:

The Regional Administrator will determine on a project basis whether intermunicipal agreements required in the Step 2 grant application must be proposed or executed. Such agreements should correspond to the institutional arrangements included within the approved facilities plan for the project.

Review Procedures:

a. insure that intermunicipal agreements are included in application package where more than one jurisdiction is involved in the proposed project;

b. determine whether proposed agreements are acceptable, and ensure that agreements are properly executed if required by the Regional Administrator;

c. insure that proposed or executed agreements are in accordance with the institutional arrangements submitted with the approved facilities plan.

Re: 40 CFR 35.920-3(b)(6), .917-6

5. Value Engineering Proposal

Purpose:

A value engineering (VE) proposal insures that the applicant will include a VE analysis in a Step 2 grant project where the Step 3 total estimated construction costs are expected to be $5 million or greater.

Discussion:

Value engineering is a systematic, specialized and creative technique for controlling project costs. After October 1, 1979, all applicable projects must include a proposal for a VE analysis as part of the Step 2 application.

Review Procedures:

Where applicable to the project, a VE analysis proposal submitted with the application should comply with the following criteria:

a. The scope of the analysis should include all components and systems, unless a limited scope is adequately justified by the applicant.

b. Members of the VE team, including the team coordinator, should be identified with brief information about their qualifications and experience.

c. The level of VE effort should be commensurate with the complexity and size of the Step 2 project.

d. A detailed fee schedule should be included for conducting the VE analysis, identifying work hour requirements, level of effort, direct and indirect costs; these should be reasonable in comparison to the work involved.

e. The VE work schedule should be properly related to the design schedule so that work may proceed concurrently and avoid delays.

Re: 40 CFR 35.920-3(b)(5), .926(a)
PRM ____
Value Engineering Work Book for Construction Grant Projects (EPA-430/9-76-008)

6. Project Progress Schedule

Purpose and Discussion:

As a condition of the grant, the applicant will be required to expediously initiate and complete the Step 2 work. A progress schedule, which identifies dates projected for initiation, comple-

tion and any significant milestones, is required in all Step 2 grant applications. This schedule, amended where necessary, will be incorporated into the grant agreement. It is important to note that no dates included in the progress schedule will modify any compliance dates established in the NPDES permit. A payment schedule must accompany the progress schedule.

Review Procedures:

a. insure that the schedule included with the grant application is reasonable and includes all significant dates of progress, particularly initiation and completion of the project. (See items under "Predesign Conference.")

b. where applicable, determine whether the progress schedule will conflict with compliance dates established in the NPDES Permit; insure that the applicant is aware of its responsibility to request modification of permit terms or other enforcement requirements if necessary.

Re: 40 CFR 35.920-3(b)(7), .935-9, .945(b)

7. Evidence of Compliance

The regulations require that the applicant furnish evidence of meeting program requisites and assurances made in the Step 1 and 2 grant applications, as well as requirements of other Federal statutes. Evidence of compliance with the following is of particular importance:

a. user charges - the applicant must submit an approvable plan and schedule for the implementation of a user charge system in accordance with the regulations and guidance.

   Re: 40 CFR 35.920-3(b)(8)(i), .925-11, .929, .935-13, Appendix B.

b. industrial cost recovery - where applicable, the applicant must agree to require each significant industrial user to pay that portion of the grant amount allocable to the treatment of its wastes;

the applicant must also furnish letters from all significant industrial users (10% or more of design waste flow or strength) indicating their agreement to pay their share of the grant amount, and stating their intended period of use of the treatment facility.

Re: 40 CFR 35.920-3(b)(8)(ii), .925-11, .928, .935-15
PRM 78-6

c. Federal facilities - the allowable project costs cannot include the proportional costs allocable to the treatment of wastes from major activities of the Federal government (either 250,000 gpd or more, or 5% or more of the total design flow, whichever is less).

Re: 40 CFR 35.920-3(b)(8)(iii), .925-16
PRM 75-35

d. sewer use ordinance - the applicant must assure that an approvable sewer use ordinance or other legally binding requirement will be enacted and enforced in each jurisdiction to be served by the facilities prior to completion of construction.

Re: 40 CFR 35.920-3(b)(8)(iv), .927-4

e. relocation requirements - if the project will result in the acquisition of private property (including easements) or displacement of persons, the applicant must give assurance of compliance with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Re: 40 CFR 35.920-3(b)(8)(v), .935-3(b)
40 CFR 30.405-2, 40 CFR Part 4

f. civil rights provisions - the applicant must have completed two forms: Assurance of Compliance, EPA Form 4700-1, and Compliance Report, EPA Form 4700-4 for evidence of compliance with the Civil Rights Act.

Re: 40 CFR 35.920-3(b)(8)(vi), .925-9
40 CFR 30.405-3, 40 CFR Part 7
PRM 75-32

g. other Federal requirements - the applicant must give general assurance of compliance with the applicable requirements of other Federal statutes and regulations as listed in 40 CFR Part 30 subpart C.

Re: 40 CFR 35.920-3(b)(8)(vi), .025-14

h. section 404/section 10 permits - when permits from the U.S. Army Corps of Engineers for the discharge of dredged or fill material are required for the facility, a section 404/section 10 permit must be issued or a determination must be made by the RA that the Corps is prepared to issue a permit.

Re: PRM 76-4

8. Pretreatment Requirements

Purpose and Discussion:

Pretreatment programs are intended to control toxics from non-domestic sources, and to provide for the reclamation and reuse of water wherever practicable. More particularly, the program is designed to: prevent the introduction of pollutants into POTWs which will interfere with treatment works operation and/or disposal or use of municipal sludge or which will pass through treatment works into receiving waters, the atmosphere or which will be otherwise harmful; and employ opportunities to recycle and to reclaim wastewater and sludge produced by wastewater treatment.

Pretreatment programs are mandatory. For existing Step 2 grants, funding may be through grant amendment. Where a Step 2 award is to be made after June 3, 1980, the applicant must submit information for compliance with the pretreatment regulations.

Review Procedures:

The application package must include the following:

a. An industrial survey identifying system users by type and location of industry and the character and volume of pollutants discharged;

b. An evaluation of the legal authority for control and enforcement including adequacy of enabling legislation and selection of mechanisms to be used (ordinances etc.);

c. An evaluation of revenue sources and financial programs to insure adequate funding to carry out the pretreatment program;

d. A determination of technical information needed to support development of an industrial waste enforcement mechanism to insure the compliance with NPDES permit conditions;

e. A design of an enforcement monitoring program;

f. A determination of pollutant removals in existing treatment facilities;

g. A preliminary determination of monitoring equipment required at the treatment facilities;

h. A determination of the tolerance of the treatment facilities to toxic pollutants; and

i. A preliminary determination of the municipal facilities needed for monitoring or analysis of industrial wastes.

Where appropriate, the pretreatment program must be updated to insure its proper implementation and to improve its effectiveness.

Re: 40 CFR 35.907, .920-3(b)(9), 40 CFR Part 403

9. Public Participation Work Plan

If the applicant determines, upon consultation with the public, that additional public participation activities are necessary, a public participation work plan shall be included in the application package.

Re: 40 CFR 35.920-3(b)(10), .917-5

10. Other Requirements and Limitations

Purpose and Discussion:

The Step 2 grant application and estimated costs must meet several additional criteria for approval. Most of these are elements required for approval of the facilities plan; however, all should be checked.

Review Procedures:

a. the project must be consistent with any applicable water quality management (WQM) plan approved under section 208 or 303(e) of the Clean Water Act, and the applicant must be the wastewater management agency designated in any approved, final WQM plan.

   Re: 40 CFR 35.925-2, PRM 75-38

b. the applicant must have, or have applied for the appropriate NPDES permits(s) with respect to existing discharges affected by the proposed project.

   Re: 40 CFR 35.925-6

c. the treatment works design must be based on a proper cost-effectiveness analysis and must meet the requirements for BPWTT, sewer system evaluation and rehabilitation and VE analysis.

   Re: 40 CFR 35.925-7

d. pertinent changes in the proposed project must have been made, as appropriate, in accordance with the findings of the environmental review or EIS.

   Re: 40 CFR 35.925-8

e. any sewage collection system work proposed in the project is in accordance with the limitations of the regulations and guidance.

   Re: 40 CFR 35.925-13, PRM 78-9

f. the limitations imposed by the regulations on treatment of industrial wastes are met.

   Re: 40 CFR 35.925-15, PRM 77-1

g. no allowable costs are included for treatment works to control pollutant discharges from a separate storm sewer system.

   Re: 40 CFR 35.925-21, PRM 75-34

F. COMBINATION STEP 2 + 3 GRANTS

Purpose:

For projects involving relatively small communities, combination Step 2 + 3 grants may be awarded with the intent of accelerating the grant process as practical.

Discussion:

A single grant may be awarded for the combined Federal share of the costs of Step 2 and Step 3 for communities of 25,000 or less if the total cost estimated for Step 3 construction is $2 million or less ($3 million or less in States with unusually high construction costs as determined by EPA Headquarters). However, the project must consist of all associated Step 2 and Step 3 work, and no segmenting is permitted. Furthermore, the fundable range of the approved State priority list must include the Step 2 + 3 work.

Review Procedures:

A single application package is to be submitted for a combined Step 2 + 3 grant. The review must insure that the following criteria and information are met or included:

a. the applicant community meets the qualification limitations of population and Step 3 cost as discussed above, and that the combined work is within the fundable range of the approved project priority list;

b. all of the items required for a Step 2 grant application (under Section E, previous) have been included and are acceptable;

c. a schedule for timely submission of plans and specifications, operation and maintenance manual, user charge and industrial cost recovery systems, sewer use ordinance, and preliminary plan of operation is included and acceptable.

Re: 40 CFR 35.909, .920-3(d), PRM 78-7

G. GRANT AWARD PROCEDURES

The award procedures for the Step 2 grant are identical to those described for the Step 1 grant in Section F. of Chapter IV.

Note: Special grant conditions may need to be inserted in the Grant Agreement/Amendment based on clearinghouse comments, requests from the State agency, or conditions unique to the project. Such unique conditions may include mitigative measures identified during review of the facilities plan, EIS or FNSI, sewer system evaluation/rehabilitation requirements or other considerations.

Re: 40 CFR 35.930

H. PREDESIGN ACTIVITIES

Purpose and Discussion

Program responsibility for the progress of a project does not end with the grant offer. Rather, the reviewer must know the status of the project to insure that it is completed in accordance with the approved project progress and payment schedule. Also, he must insure that the applicant is aware of the administrative and technical considerations to be included in the plans and specifications. Further aspects of interim progress review are described in Section J.

Procedures:

Shortly after acceptance of a Step 2 grant, the reviewer should:

a. contact the grantee and his consultant to make known the kinds of advice and assistance available from the State and EPA during the preparation of the plans and specifications;

b. forward to the grantee and his consultant the administrative and technical considerations to be incorporated into the plans and specifications, including 40 CFR 35.936, .938, .939 and Appendix C-2;

c. arrange for a predesign conference, if appropriate.

I. PREDESIGN CONFERENCE

Purpose and Discussion:

The State agency, in conjunction with EPA, should assume responsibility for insuring that the plans and specifications are prepared in accordance with work funded under the scope of the Step 2 project and other regulatory requirements. Because of the complexity of these requirements, a predesign conference between the grantee, his consultant, the State and EPA is strongly urged, whenever practicable.

The predesign conference, which may be held with one or more grantees, promotes careful planning and coordination and insures the timely completion of the various phases of a project. In many cases, the review of plans and specifications may be delegated to a State. In such cases, the State is responsible for the predesign conference arrangements. For the other cases, the regions are encouraged to develop formats for the predesign conferences. The formats should be tailored to the individual staffing resources of the States and the needs of the applicants.

Procedures:

Shortly after acceptance of a Step 2 grant, but prior to the preparation of plans and specifications, the reviewer should arrange a predesign conference with the grantee, grantee's consultant and appropriate regulatory personnel. Suggested subjects to be discussed include:

a. the legal requirement for inclusion of and provisions for carrying out the bidding procedures described in 40 CFR 35.936, .938, .939, Appendix C-2, and EPA's MBE policy and Regional guidance.

b. the technical requirements of the design to insure that the project will meet effluent or BPWTT limitations per NPDES permit, and will be designed in accordance with sound engineering practice, including cost effectiveness and VE provisions.

Re: 40 CFR 35.925-7, PRM 79-7

c. additional requirements, as applicable, for detailed design reports beyond that submitted with the facility plan. Possible examples are:

- loading rates and sizes of various components of the plant;
- design computations for sewers, including slopes and capacities;
- system head curves for pumping stations, indicating number and capacity of pumps;
- other detailed design reports which the particular project may require;

d. pretreatment design requirements and scheduling, as applicable, for industrial discharges;

Re: 40 CFR 35.907, .925-12, 40 CFR Part 403

e. design considerations or investigations resulting from the environmental assessment or environmental impact statement. Possible examples are:

- a soil erosion and sediment control plan;
- a traffic control plan;
- archaeological investigations;

Re: 40 CFR 35.925-8, PRM 75-27, PRM 78-1

f. design requirements arising from executed agreements among jurisdictions;

Re: 40 CFR 35.917-6

g. force account requirements, as applicable;

Re: 40 CFR 35.936-14

h. phasing of contracts;

Re: PRM 75-14

i. flood protection insurance requirements, as applicable;

Re: 40 CFR 30.405-10, PRM 76-5

j. records to be maintained during design and construction, separating eligible and ineligible items;

Re: 40 CFR 30.805, 35.940

k. site certification requirements including easement acquisition if not previously satisfied (Note: if land to be acquired is grant eligible, approval by the Regional Administrator is needed prior to acquisition so that grant funds are not lost);

Re: 40 CFR 35.920-3(b)(2), .935-3, PRM 77-6, PRM ____

l. future requirements for;

- user charge and industrial cost recovery systems;
- a sewer use ordinance;
- an evaluation/rehabilitation program, as applicable;
- a plan of operation, including, O&M manual, staffing, training, and startup services;

Re: 40 CFR 35.935-12, -13, -15, -16
PRM 77-3

m. requirements for submission of quarterly project status reports; and, requirements for periodic inspections and audits, as necessary, for large or complex projects (generally at 30% and 60% completion);

Re: 40 CFR 30.635, .820

n. requirement of value engineering in the design phases of the project;

Re: 40 CFR 35.920-3(b)(5), .926, PRM 75-30,
PRM ____

o. possible benefits from the use of construction management;

p. the use of incentive clauses in construction contracts;

Re: PRM 79-5

q. qualification of major items of equipment;

Re: PRM 79-10

r. sole source procurement, experience clause, and buy American provisions;

Re: 40 CFR 35.936-13

s. eligible and ineligible cost separation in the bid proposal;

t. initiation of plans for financing local share of Step 3 project.

Re: PRM ____

The reviewer should provide the grantee with guidelines, instructions, booklets, or other publications which describe specific requirements in detail.

J. REVIEW OF PLANS AND SPECIFICATIONS

Purpose:

To insure that the project to be built will satisfy BPWTT and statutory requirements.

Discussion:

Periodic reviews and inspections of progress should be made during the preparation of plans and specifications. As a general rule, the reviewer should contact the grantee and design consultant at 30% and 60% completion, as a minimum, to insure that the work is being performed properly. Progress reports should also be required of the grantee, and submitted at least quarterly, in any project of one year or longer duration. Review of progress should insure that work is on schedule, complies with regulations, and that grant conditions, including contingencies on design imposed by the environmental review, are followed. Interim payments are made generally in accordance with the project progress and payment schedule so that outlay management projections can be maintained. Interim audits may also be performed, as appropriate, based on payment requests and actual work performed. Refer to Chapter VII for other financial considerations.

The set of plans and specifications submitted for final review must reflect all changes and be suitable for bidding purposes. The review procedures are both administrative and technical. The technical review procedures are broad in scope and each State or Region is encouraged to pattern its own review procedures to account for State or local design practices and requirements.

Through an interagency agreement, the Corps of Engineers may conduct "biddability" and "constructibility" reviews of project plans and specifications. While these reviews do not involve an evaluation of the adequacy of the design to achieve the requisite treatment level, they do insure that the plans and specifications are suitable for bidding and that the project can be constructed as designed without unforeseen and lengthy delays. The "Biddability" review basically entails the assurance that the bid documents are clear and concise and that nothing has been omitted. In addition, the Corps will ensure that: (1) the project is properly segmented into "biddable" packages, (2) specific bid items are such that bids received may be realistically evaluated, (3) the plans and specifications are detailed enough to allow reasonable bidding. The "Constructibility" review deals with the build-ability of the project as designed. In addition, this aspect involves a consideration of: (1) any potential construction constraints imposed

by the site, (2) adequate resolution of actual or possible conflicts inherent in the plans and specifications, (3) the relationships of the specifications to the plans, (4) the compatibility of the plans and specifications with available construction procedures/equipment, and (5) any other potential difficulties.

The review period is limited to 30 days and the reports are submitted to the EPA project officer (or State if appropriate) for review and action. Generally, findings can be classified within the following categories: (1) major significance - comments of this nature should be included in the plans and specifications unless extenuating circumstances are present; (2) important - incorporation in the plans and specifications is advisable; (3) minor - the problem is of little importance (e.g., misspellings); (4) differences between the plans and specifications (e.g., inconsistent identification of equipment, materials, etc.). The project officer shall determine what response is necessary from the grantee in regard to Corps comments.

Review Procedures:

1. Administrative Review

The following six items must be included in the bidding documents:

- a statement of work, including drawings and specifications, and the required completion schedule;
- the terms and conditions of the contract (40 CFR 35.938-8 and Appendix C-2)
- an explanation of the method of bidding; the method of evaluating the bid prices, and the basis for the award of the contract;
- the criteria for evaluating bidders;
- the standard statement (40 CFR 35.938-4(c)(5)) concerning the funding of the project by EPA;
- a copy of 40 CFR 35.936, 35.938, 35.939, and 43 FR 248 pp. 60220-60224.

In addition to the above six items, the reviewer is to insure that the specifications include the following provisions:

a. Supplemental General Provisions

Appendix C-2 of 40 CFR Part 35 which includes requirements for:

- changes, suspension or termination
- labor standards
- utilization of minority business enterprises (MBE)
- audit: access to records
- price reduction for defective cost or pricing data
- covenant against contingent fees
- gratuties
- patents
- copyrights and rights in data
- clean air and water clause
- buy American provisions (PRM 78-3)

b. Equal Employment Opportunity (EEO) and MBE Utilization

The EEO and MBE provisions must be followed where contracts are $10,000 or greater. In all such cases, the contractors must comply with Executive Order 11246 and engage in affirmative action directed at promoting and ensuring EEO in the work force under the contract pursuant to requirements of the Department of Labor.

Where the cost of construction work is estimated to be more than $1 million, or where specified by the grant agreement, the grantee must consult the Regional Administrator about EEO requirements before issuance of invitations to bid. In such cases, a preaward compliance review will be justified.

In addition, the plans and specifications should include a statement of MBE goals for utilization of minority business enterprises and a statement of how MBE policy is to be implemented. The reviewer should contact the Civil Rights and Urban Affairs Office within the EPA region for specific instructions as appropriate.

Re: 40 CFR 35.936-6, -7, .937-12(b), .938-9(b)(2);
Appendices C-1(14) & C-2(9)
40 CFR Part 8
43 FR 248 pp. 60220-60224

c. Davis-Bacon Act

The provisions of the Davis-Bacon Act must be included in contracts exceeding $2,000. These provisions require the payment of prevailing wages for the various trades as determined by the Secretary of Labor.

Prevailing area-wide rates are published weekly in the Federal Register. For individual projects not included in areas with area-wide wage rate determinations, the Regional Office will obtain a wage rate for inclusion in the specifications.

Modifications to area-wide wage rate determinations are to be included in the bidding documents provided they have been published 10 days prior to the bid opening date. Modifications to individual project determinations are to be included provided they are received in the Regional Office 10 days prior to bid opening.

The reviewer is to insure that the current wage rate determination is included in the bidding documents or that provisions for inclusion have been made.

Re: 40 CFR 30.415-1, 35.935-5

d. Flood Insurance

For projects requiring flood insurance (see Chapter VI e.4.a. of this Handbook) make certain that the contractor is required to obtain the necessary flood insurance during construction.

Re: 40 CFR 30.405-10, PRM 76-5

e. Bonding and Insurance

For contracts in excess of $100,000, the following minimum bonding and insurance requirement must be met:

- 5% bid bond; grantees may not require bid guarantees greater than 5% or that a specific form of bid guarantee be used unless required by State/local law.
- 100% performance and payment bond;
- fire and extended coverage workmen's compensation, public liability and property damage, and "all risk", as required by local or State law;
- flood insurance, as applicable, during construction.

For contracts less than $100,000, bonding and insurance requirements shall be in accordance with local or State practices.

Re: 40 CFR 35.936-22

f. Construction Incentive Program

A construction incentive clause may be included as a part of the construction bid package for projects having a Step 3 eligible cost of more than $10 million, when approved in accordance with PRM 79-5.

2. Technical Review:

The technical review of the plans and specifications must insure that the design is based upon: the cost-effectiveness provisions of the regulations (40 CFR Part 35 Appendix A), the achievement of applicable effluent limitations or BPWTT, the sewer system evaluation and rehabilitation requirements, and valve engineering provisions (40 CFR 35.925-7). Structural, electrical and mechanical details of the design are not critically reviewed because they are the responsibility of the engineer whose seal appears on the drawings. However, obvious irregularities should be noted.

The following are examples of items which should be reviewed.

a. Environmental Considerations

Plans and specifications must be compared with mitigative measures required by the FNSI or EIS. Examples

might be soil erosion control, hours of operation, backfilling and seeding, structural design for buildings in a flood plain, etc. Refer also to the approved facilities plan for energy conservation and open space measures.

b. Safety

The requirements of the Occupation Safety and Health Act (OSHA) are addressed. The design of chlorine facilities must specifically comply with agency policy (PRM 79-1). Explosion proof motors should be used wherever appropriate.

c. Bypassing

Construction is to be carried out so as to avoid bypassing of flows during construction, except where specific prior approval has been obtained from EPA.

d. Project Sign

The contractor is required to provide an appropriate project sign.

e. Reliability and Flexibility

The proposed facilities must be reliable and provide for flexibility in operation. This may be accomplished, for example, by requiring standby power, by providing for bypass of individual plant units, by providing pumping capacity sufficient to operate the plant with the largest pump out of service, etc.

f. Operation and Maintenance

All equipment, piping, switches, instruments, etc. are to be clearly marked or color-coded for ease of identification and location for operation and maintenance.

g. Public Water Supply

All public water supplies are to be protected by adequate backflow preventors (for example, double check valves, air gap).

h. Chemical Storage

All chemicals are to be properly stored and curbed to hold the entire volume in the event of an accidental spill. Also, adequate safety protection gear is to be provided, with proper storage, for plant personnel. Chlorine storage and safety requirements must be followed.

Re: Technical Bulletin No. D-71-1, PRM 79-1

i. Ventilation

Adequate ventilation is to be provided in all areas where necessary (for example wet well, dry well, chlorine room, chemical storage area, etc.).

j. Laboratory Facilities

The laboratory facilities must be adequate to conduct the type of sampling and testing required by the NPDES permit or by the State agency.

k. Emergency Alarms

Adequate alarms are to be provided to warn of failures or dangers.

l. Hazardous Materials

Mercury is not to be used for trickling filter seals. Other uses of mercury require special review and approval. Other toxic compounds, such as toxic sewer grouts (PRM 78-11), are not to be used in hazardous applications.

Re: Technical Bulletin No. D071-2
PRM 78-11

m. Sewers

Acceptable levels of infiltration, and tests therefore, are included; sewers should maintain minimum scouring velocities and have adequate capacity, including peaking factors.

n. Equipment

Specifications for equipment must conform with the regulations (40 CFR 35.936-13), including nonrestrictive specifications requirements, sole source restrictions, experience clause restritions, and buy American provisions.

Re: 40 CFR 35.936-13
PRM 75-5, PRM 78-3

o. Shellfish Waters

Where discharges will come into contact with shellfish waters, appropriate measures must be included to protect the shellfish.

Re: Technical Bulletin, Protection of Shellfish Waters, EPA 430/9-74-010

p. Pretreatment

Where applicable, the design must be in accordance with the requirements for pretreatment of incompatible industrial wastes.

Re: 40 CFR 35.906, .925-15, Part 403

q. I & A Technology Confirmation

Where a project, or portion of a project, has been designated innovative on the basis of the facilities plan, the plans and specifications must meet the appropriate criteria in 40 CFR 35 Appendix E.6, or they may lose I & A designation.

Re: 40 CFR 35.908(b)(2)

3. Plans and Specifications Approval

a. General

Upon determination that the plans and specifications are approvable, the grantee is to be so notified. The notification will generally be in the form of a letter and should contain any special conditions resulting from the review which would be imposed on the applicant upon application for a Step 3 grant. This notification should specifically remind the applicant not to advertise for bids until after applying for and receiving a Step 3 grant. He should also be reminded that the EPA is not obligated to award a Step 3 grant for the project.

b. Step 2 + 3 Grants

If a grantee was awarded a combination Step 2 and 3 grant, he must receive written authorization from the Regional Administrator before advertising for bids on the construction portion of the project. Before receiving this authorization, he must obtain approval of his additional submissions for user charge, industrial cost recovery, preliminary plan of operation, and pretreatment compliance.

Re: 40 CFR 35.935-4

K. O&M FACILITY/TRAINING GRANTS

Purpose:

Federal assistance is available in the form of grants for the purpose of operation and maintenance training.

Discussion:

A grant may be awarded for construction and support of a training facility, facilities or training programs for operation and maintenance. A training grant for 100 percent of the cost of construction of treatment works may be exempted by the Administrator from the State priority list requirements; however, the Federal funds awarded to any State for all training facilities or programs may not exceed $500,000. A special application is required.

Review Procedures:

An application for a training grant must be reviewed for inclusion of:

a. a statement discussing the suitability of the treatment facility, facilities or programs for training personnel in operation and maintenance of treatment works throughout one or more States;

b. a written commitment from the State to carry out an approved training program at the facilities;

c. an engineering report (where a facility is to be constructed) including design and cost data for design and construction;

d. a detailed outline of the training programs, including:

- an assessment of need for training
- how need was determined
- who will be trained
- the curriculum and materials to be used
- the training delivery system to be used
- the resources available for the program
- a budget breakdown for the program
- the relationship of the facility or program to other programs.

Re: 40 CFR 35.915(a), .920-3(e), .930-1(b)

CHAPTER VI

STEP 3 GRANT PROCESSING

A. INTRODUCTION

B. SCHEMATIC FLOW DIAGRAM

C. APPLICATION CONTENTS

D. PLANS AND SPECIFICATIONS APPROVAL

E. ADMINISTRATIVE REVIEW

F. GRANT AWARD PROCEDURES

G. PROCUREMENT OF CONSTRUCTION CONTRACTS

H. PRECONSTRUCTION CONFERENCE

I. MONITORING OF CONSTRUCTION ACTIVITIES

A. INTRODUCTION

This chapter describes the contents of and review procedures for processing of a Step 3 grant application. It begins with the receipt of the application and concludes with the start-up of the completed facilities.

Section B, Schematic Flow Diagram, visually places this chapter in the proper sequence and indicates the major activities of the Step 3 application and review.

Section C, Application Contents, provides a ready listing of the materials which are contained in an application package for a Step 3 grant.

Section D, Plans and Specifications Approval, restates the requirement for approved plans and specifications as a part of the Step 3 application.

Section E, Administrative Review, describes the procedures involved in reviewing priority list compliance and certification, application form, contracts and subagreements, intermunicipal agreements, and other evidence of compliance.

Section F, Grant Award Procedures, describes the action required on the part of EPA in making the grant offer.

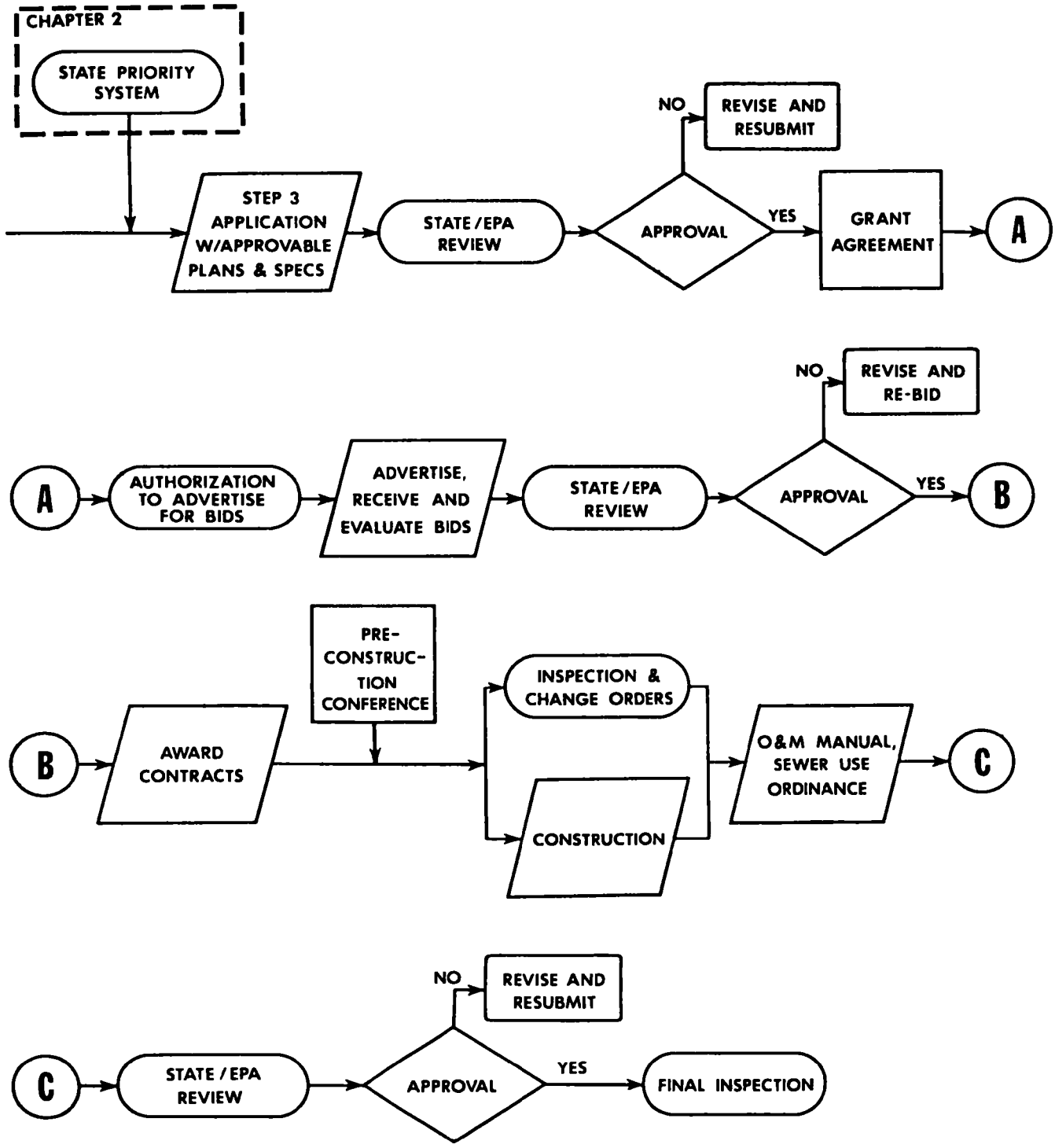
Section G, Procurement of Construction Contracts, describes the procedures involved in the authorization to advertise for bids, review of bids, grant increase/decrease, protests, and authorization to award contracts.

Section H, Preconstruction Conference, describes the administrative and technical considerations to be discussed with the grantee relative to construction activities.

Section I, Monitoring of Construction Activities, describes the the procedures involved in the execution of change orders and onsite inspections, and the review of operation and maintenance programs.

B. SCHEMATIC FLOW DIAGRAM

The flow diagram below visually places this chapter in the proper sequence and indicates its relationship to other chapters. The diagram includes the general functions of the Step 3 grant process as performed by the applicant, State and EPA.



C. APPLICATION CONTENTS

Below are listed the basic items to be included in an application package. The items are listed here for quick reference, while the review procedures for each item are described later. The reviewer is to make a cursory review to insure that all items are included, that all applicable portions of the forms are completed and that the documents are signed by the appropriate officials. If items are missing or explanations are necessary, the State is to be contacted but the reviewer is to proceed as far as possible to insure quick action once the corrections are made.

1. Approvable Plans and Specifications.

2. State Priority Certification, EPA Form 5700-28.

3. Application, EPA Form 5700-32, including authorizing resolution and site certificates.

4. Proposed subagreements or explanation of method of awarding proposed subagreements, including information necessary for development of outlay schedules and MBE participation.

5. Executed intermunicipal agreements, where applicable.

6. Schedule for compliance with Plan of Operation requirements.

7. Submissions for compliance with pretreatment requirements, where applicable.

8. User charge system, ordinance and resolution by jurisdictions.

9. Industrial cost recovery system, where applicable.

10. Evidence of compliance with the Flood Disaster Protection Act and the sewer use ordinance requirements.

11. Sewer system rehabilitation scheduling, where applicable.

12. A public participation work plan, where applicable.

Re: 40 CFR 35.920-3(c), .925-3, -10, .927-3, -4.
40 CFR 30.315, .405-10.

D. PLANS AND SPECIFICATIONS APPROVAL

The review of plans and specifications is described in Chapter V of this Handbook. The applicant has been notified that the plans and specifications are approvable, and should have been informed of any missing forms or documents which must be included in the final bidding documents. The reviewer should confirm this by examining the project file. The applicant is responsible for submitting copies of the plans and specifications, including all required documents, as a part of the Step 3 application. In particular the applicant should be informed of the requirement for inclusion of the latest wage rate determination in accordance with the Davis-Bacon Act.

Re: 40 CFR 35.920-3(c)(2)

E. ADMINISTRATIVE REVIEW

1. Priority List Compliance and Certification

Purpose:

The State agency is required to certify each project as entitled to priority for a grant in accordance with the State priority system and resulting project priority list.

Discussion:

Chapter II discusses the State priority system and list. Once the system and annual list have been approved by EPA, each project is certified by the State as being entitled to priortiy for a grant over all other projects below it on the priority list (EPA Form 5700-28, see Appendix B).

Only projects which have been certified by the State as entitled to priority for Federal assistance may receive grants.

Review Procedures:

Review State Priority Certification and determine that:

a. the name, project number and description of project agree with the application, form 5700-32, and the approved State priority list;

b. the form includes the signature of the authorized State official;

c. the award of grant assistance for the project will not exceed the State's allotment, including reallotments;

d. the award of grant assistance will not jeopardize the funding of any projects of higher priority;

e. reserve funds are identified where used.

Re: 40 CFR 35.915, .917-2, .920-2, .925-3, .925-4.
PRM 75-14
PRM 75-24

2. Application Form

Purpose:

EPA Form 5700-32 serves as the formal application document and sets forth the information necessary to qualify for a construction grant. Additionally, the application contains "assurances" from the applicant which are necessary to satisfy statutory requirements.

Discussion:

The application for a Step 3 grant is submitted by the authorized representative of the jurisdictions included in the approved facility plan. The applicant must demonstrate the capability and legal authority to finance, construct, operate and maintain the proposed wastewater treatment facilites.

The application form is used to request initial grants, amendments, and supplemental grants. The form (see Appendix B) contains instructions for completion of each of the five parts. Part II, Section B must be completed for a Step 3 grant. No Step 3 grant may be awarded until the grantee has submitted assurances that all required property rights, as defined in 40 CFR 35.935-3(b), have been obtained or bonafide options taken or formal condemnation proceedings initiated (exceptions are discussed in PRM).

Part III, Section D, concerns the applicant's proposed method of financing the non-federal share of the project. In accordance with PL 94-488, revenue sharing funds can be used to meet the applicant's share of the cost of the project. In certain cases involving sewage collection systems (not treatment plant nor intercepting sewers), the applicant may use Community Development Block Grant Funds as the community's local share. In these cases the reviewer should contact the regional DHUD office for specific limitations.

The grant request may not include costs for treatment of wastes originating from Federal installations (excluded from allowable costs).

The statutes require that the applicant comply with related laws and regulations and give other assurances. Many of these requirements are satisfied for a Step 3 grant when the applicant signs the application and thereby assures and certifies that he will

comply with the requirements. However, additional evidence of compliance with some of these assurances is required from the applicant (see Section E.9). A copy of the authorizing resolution designating the signer to act as the representative of the applicant (Part V, item 1 of the application form) must be included with the application. Any subsequent changes in the authorized offical must also be documented by a copy of the resolution authorizing the change.

Review Procedures:

Review the application form and determine that:

a. the name, project number, and description of the project and the amount of the grant request agree with the State Priority Certification Form 5700-28 and the approved State Priority List;

b. the form is signed by the authorized representative and a copy of the authorizing resolution is attached;

c. the certification of project site interest (Part II, Section B) is completed; and appropriate documentation assuring all required property rights is included;

d. the applicant can fully fund its share of the project costs and can obtain funds within 90 days of the grant award;

e. all items in the application are complete or marked not applicable (NA);

f. Part V, Assurances is included with the application. If not, properly signed form must be obtained.

g. force account work must be properly identified.

Re: 40 CFR 30.315
40 CFR 35.920-2, .920-3(c), .925-5, .925-16, .935-3(b)(3)
PL 94-488
31 CFR Part 51, Department of the Treasury
PRM ____

3. Contracts and Subagreements

Purpose:

Contracts or subagreements for personal or professional services are submitted by the applicant and reviewed by both the State and EPA to insure that the scope and nature of the proposed services are sufficient to result in approvable facilities and that the fees and schedules are reasonable.

Discussion:

The personal and professional services covered by the subagreements at the time of Step 3 application submission are generally the consulting engineering services. The regulations state that the application shall include proposed subagreements, or detailed description of the method of awarding subagreements, for performance of any substantial portion of the project.

The detailed requirements of and procedures for procuring personal or professional services appear in 40 CFR 35.936, .937 and Appendices C & D. Certain clauses of the regulations (e.g. access) are applicable to subagreements and lower tier subagreements in excess of $10,000. See Figure III-1, previous, for applicability of specific clauses. The goal oriented policies and procedures regarding MBE set forth in 43 FR 248 contain the responsibilities of EPA, Grantees, Consulting firms, Prime contractors, and MBEs. Subagreements in which the fee is a percentage of construction costs are not acceptable nor are cost multipler contracts where profit is included in the multipler.

Information must be sufficient for the preparation of outlay schedules in accordance with PRM 79-9.

Review Procedures:

Review the agreement(s) and determine that:

a. the grantee has complied with 40 CFR 35.936 and .937; and (if applicable) .939;

b. the scope of work is sufficient to construct approvable facilities; and cost and fee are appropriate to the scope of work;

c. completion schedules are reasonable and in agreement with the plans and specifications.

d. the applicant has complied with EPA's policies and goals as they apply to minority business enterprises (MBE).

Re: 40 CFR 35.920-3(c), .935-7, .936, .937, .939, .965, Appendices C and D
40 CFR 30.605
PRM 79-9
43 FR 248 pp. 60220-60224

4. Intermunicipal Agreement

Purpose and Discussion

Where two or more jurisdictions will be served by the proposed facilities, intermunicipal agreements insure that all jurisdictions will be obligated to comply with financial arrangements and procedural requirements under the grants. At the time of Step 3 grant application, the final, executed intermunicipal agreements must be furnished.

Review Procedures:

a. insure that final intermunicipal agreements are included in the application package where more than one jurisdiction is involved in the project;

b. insure that the agreements are properly executed by the responsible officials of all jurisdictions involved in the project, and are binding.

Re: 40 CFR 35.920-3(c)(1)

5. Plan of Operation

Purpose and Discussion:

A preliminary plan of operation is required prior to award of the Step 3 grant to insure that the applicant is committed to implementation of operation and maintenance, staffing, training and start up requirements.

The preliminary plan consists of a schedule for implementation of the activities necessary to assure efficient and reliable start-up and continued operation of the facilities. The schedule may be defined in terms of an estimated percent completion of construction or in terms of numbers of days prior to an operational start date.

Review Procedures:

Ensure that the schedule includes estimated milestones for actions in accordance with PRM 77-3. These may include the following:

a. points of hiring plant personnel, training milestones;

b. timing of O&M manual preparation;

c. development of safety and emergency operation programs;

d. development of records, filing and laboratory procedures;

e. timing of start up procedures.

Re: 40 CFR 35.920-3(c)(3), .925-10, .935-12
PRM 77-3.

6. Pretreatment Requirements

Purpose and Discussion:

Pretreatment programs are intended to control toxics from non-domestic sources, and to provide for the reclamation and reuse of water wherever practicable. More particularly, the program is designed to: prevent the introduction of pollutants into POTWs which will interfere with treatment works operation and/or disposal or use of municipal sludge or which will pass through treatment works into receiving waters, the atmosphere or which will be otherwise harmful; and employ opportunities to recycle and to reclaim wastewater and sludge produced by wastewater treatment.

Pretreatment programs are mandatory. No Step 3 grant award can be made after December 31, 1980 unless applicant compliance with the pretreatment regulations can be proven. On Step 3 projects in existance prior to January 1, 1981, pretreatment programs can be funded with grant increases.

Review Procedures:

The application package must include the following:

a. An industrial survey identifying system users by type and location of industry and the character and volume of pollutants discharged;

b. An evaluation of the legal authority for control and enforcement including adequacy of enabling legislation and selection of mechanisms to be used (ordinances etc.);

c. An evaluation of revenue sources and financial programs to insure adequate funding to carry out the pretreatment program;

d. A determination of technical information needed to support development of an industrial waste enforcement mechanism to insure the compliance with NPDES permit conditions;

e. A design of an enforcement monitoring program;

f. A determination of pollutant removals in existing treatment facilities;

g. A preliminary determination of monitoring equipment required at the treatment facilities;

h. A determination of the tolerance of the treatment facilities to toxic pollutants; and

i. A preliminary determination of the municipal facilities needed for monitoring or analysis of industrial wastes.

Where appropriate, the pretreatment program must be updated to insure its proper implementation and to improve its effectiveness.

Re: 40 CFR 35.907, .920-3(c)(4), 40 CFR Part 403

7. User Charge System

Purpose:

The user charge system requires that users of a treatment works will pay their share of operation and maintenance (including replacement) costs.

Discussion:

In the Step 2 application, the applicant must have developed an approvable plan and schedule for the implementation of a user charge system. After June 30, 1979, a Step 3 grant may not be awarded until the applicant's user charge system is approved.

A system, based on actual use or ad valorem taxes as appropriate, must fulfill the objective of distributing the costs of O&M among all users or user classes in proportion to their waste load contributions. Factors to be included in the calculation of charges are the volume, flow rate and strength of the wastes of all users or classes. Each user, or class of users, must be charged on an equitable basis to fairly apportion the O&M costs. An effective user charge system will bring about operational self-sufficiency.

Where more than one political jurisdiction is included in the project service area, each jurisdiction in the service area must develop and enact an acceptable user charge system. In the first year of operation, the user charges may be based upon past experience or reasonable estimates. However, thereafter the applicant is to review the user charges biennially at a minimum and initiate revisions, as necessary, to reflect actual operation and maintenance costs of the treatment works and actual waste load contributions from each user or class of users.

Review Procedures:

The user charge system submission must be reviewed to insure compliance with 40 CFR 35.929. The following criteria are applicable:

a. the system fairly apportions the O&M costs among all users or user classes according to waste load or flow characteristics. A system based upon ad valorem taxes (dependent upon taxable property ownership) may be acceptable if in accordance with 40 CFR 35.929-1(b). Appendix C of 40 CFR Part 35 includes acceptable user charge system models;

b. the implementation of the program will provide sufficient revenues to offset all actual O&M costs;

c. a system will be implemented and enforced by all political jurisdictions within the service area of the treatment works. Resolutions, local ordinances, written statements or other agreements may be accepted as evidence of compliance by the political jurisdiction involved (confer with "Intermunicipal Agreements," Section 4).

Re: 40 CFR 35.925-11, .929, .935-13, Appendix B
PRM 75-37

8. Industrial Cost Recovery System

Purpose:

The industrial cost recovery system provides a means whereby industrial users of a publicly-owned treatment works repay the proportionate Federal share of the construction costs of the treatment works allocated to their use.

Discussion:

The industrial cost recovery (ICR) system provides a system by which all industrial users of the treatment works will repay, over a defined period, their portion of the Federal share of planning, design and construction costs of the works. These costs are to be recovered by the grantee over the useful life of the treatment works but not to exceed 30 years. The grantee is obligated to collect these payments no less often than annually and to refund 50% of the total amount (plus any interest accrued) annually to the U.S. Treasury. Of the remaining half of the recovered funds, a portion may be used to pay the incremental cost of administering the ICR system. A minimum of 80% of the amount remaining after payment of the incremental cost is to be used by the applicant, subject to the Regional Administrator's approval, for the eligible costs of expansion or reconstruction of wastewater treatment facilities. The remainder can be used for any purpose except construction of industrial pretreatment facilities or rebates to contributing industries.

The system is applicable only to the Federal share of construction costs. No Federal requirement exists for recovery of the State or local share of costs for treatment of industrial wastes (although State or local laws may be so enacted). The Federal share of the cost of construction includes the Steps 1, 2 and 3 grants except the costs associated with I/I analysis and the cost associated with sewer rehabilitation and nonexcessive I/I if they are not attributable to industrial users.

ICR assessments are in proportion to the industrial user's wastewater characteristics. The wastewater characteristics may include strength, volume, delivery flow rate, and shall be monitored according to the schedule included in the approved ICR system. In determining the amount of an industrial user's discharge, the grantee may exclude domestic wastewater originating from the industry. After applying this exclusion, if the discharge exceeds 25,000 gpd (or the weight of BOD or suspended solids equivalent to that found in 25,000 gpd of domestic wastewater), the industry is subject to ICR charges. The grantee reviews the ICR system annually and adjusts ICR payments based on the monitored characteristics. If an industrial user discontinues use of the treatment works, its ICR payment will cease.

Note: A moratorium on the collection of ICR charges from industrial users is in effect for the period of January 1, 1978 to June 30, 1980.

Review Procedures:

The ICR system must comply with the regulations (40 CFR 35.928) and guidance (MCD-45). The following criteria are applicable:

a. the system will collect costs appropriately from all "industrial users" defined in 40 CFR 35.905.

b. the system will be implemented and enforced by all political jurisdictions to be served by the proposed facilities. Resolutions, local ordinances or written statements may be accepted as evidence of compliance. These may be incorporated into the required intermunicipal agreements (Section 4).

Re: 40 CFR 35.905, .925-11, .929, .935-15
Industrial Cost Recovery Systems (MCD-45)
PRM 78-6

9. Evidence of Compliance

The regulations require that the applicant furnish evidence of meeting program requirements and assurances made in the Step 3 grant application, and compliance with other Federal statutes. In addition to evidence required previously for the Step 2 application and approval of plans and specifications, the following are required:

a. Flood Disaster Protection Act

To determine if a community is required to participate in the flood insurance program, consult the regional DHUD office. If the community is eligible for participation and if the project contains insurable structures, each of $10,000 or more in value, the applicant is to furnish evidence that it is participating in the program and a letter of intent that it will provide for the required insurance both during construction and for the useful life of the project.

Structures that must be insured are new or reconstructed surface structures which are walled and roofed (control building or pumping station for example). Items which are not eligible for insurance are sewers or other facilities not likely to be damaged in the event of flooding.

Projects outside the flood hazard areas or in areas not yet delineated by DHUD need not obtain flood insurance. Communities have until one year after notification of identification as a flood-prone area to meet the flood insurance requirement.

Re: 40 CFR 30.405-10
PRM 76-5

b. Sewer Use Ordinance

The applicant must submit a current sewer use ordinance or a letter of intent that such ordinance will be enacted in each jurisdiction before completion of construction. The sewer use ordinance must prohibit new sources of inflow (illegal connections from sump pumps, foundation drains, roof leaders, etc.) from being connected to the sewer system and require proper design and construction techniques for new connections.

Re: 40 CFR 35.927-4, .935-16

c. Sewer System Rehabilitation Schedule

Where the scope of the Step 3 grant includes sewer system rehabilitation, the applicant must submit a schedule for completing the rehabilitation program. Because the applicant is required to comply with the schedule for sewer system rehabilitation in order to receive full grant payment, the schedule must be reasonable for the work involved. It is desirable that the rehabilitation program be completed prior to completion of the plant. However, the rehabilitation program may continue beyond the scheduled start-up provided that the unfinished rehabilitation work will not have an adverse effect on the operation of the plant.

Re: 40 CFR 35.927-3, .927-5(c), .935-16

10. Public Participation Work Plan

If the applicant determines, upon consultation with the public, that additional public participation activities are necessary, a public participation work plan shall be included in the application package.

Re: 40 CFR 35.920-3(c)(5), .917-5

F. GRANT AWARD PROCEDURES

Procedures to be followed in awarding a Step 3 grant are identical to those used in making a Step 1 award. (See Chapter IV, Section F.)

In addition, special conditions of the grant are included in Part III b of the Grant Agreement/Amendment. These conditions may be based upon clearinghouse comments, requests from the State agency or conditions unique to the project.

The grantee must complete certain regulatory requirements before full grant payment may be made. To reinforce the importance of these requirements, and to avoid oversight on the part of the applicant, they may be included in the grant agreement as "special conditions." These are:

a. O&M Manual - No more than 50% of the grant may be paid until the draft manual has been submitted or evidence of compliance has been received, and no more than 90% may be paid until a satisfactory O&M manual has been furnished.

b. Sewer Use Ordinance - No more than 80% of the Step 3 grant may be paid until the sewer use ordinance(s) is approved, unless excepted.

c. Rehabilitation Program - No more than 80% of the grant may be paid until compliance with the rehabilitation program (if required) is achieved, unless excepted.

d. Pretreatment Program - No more than 90% of the grant may be paid until the municipal pretreatment program is approved (unless an extension is granted by the Regional Administrator in accordance with 40 CFR 35.935-19).

Re: 40 CFR 35.935-12(c), -16(b), -19

Note: It is imperative that the preconstruction phase of Step 3 projects be carefully managed to minimize the lag time between award of the Step 3 grant and initiation of construction. The status of this phase is reported by periodic Regional updating of the preconstruction information in the Grants Information and Control System.

It should be borne in mind that 40 CFR 35.935-9 requires that the Regional Administrator terminate a grant if construction is not initiated within one year after award of the Step 3 grant. The termination date may be extended for a maximum period of six months if the Regional Administrator determines that such an extension is justified. Further extension is possible only upon formal deviation from the appropriate provisions of 35.935-9.

Re: 40 CFR 30 Subpart I
40 CFR 35.935-9
PRM 78-12

G. PROCUREMENT OF CONSTRUCTION CONTRACTS

1. Authorization and Formal Advertising for Bids

Discussion:

Once the grantee has accepted the grant offer, or concurrent with transmittal of the grant offer and conditioned upon acceptance, EPA may authorize advertising for bids (complete approvable bidding documents, including plans and specifications, were a part of the Step 3 grant application). While the approved bidding documents contain the necessary requirements for formal advertising (35.938-4), the letter authorizing the grantee to advertise for bids should reemphasize and briefly remind the grantee of these requirements and the procedures to be followed after receipt of bids.

Procedures:

A letter to the grantee should:

a. authorize him to advertise for bids in accordance with regulations;

b. indicate the documents to be submitted and procedures to be followed after receipt of bids (see item 2 following for list of documents);

c. warn him not to award contracts until authorization to do so is received from EPA.

d. remind grantee that while rejection of all bids is possible, such action may be taken only with prior EPA concurrence and only for good cause.

Re: 40 CFR 35.938-4
PRM 78-8

2. Review of Bids

Purpose and Discussion:

A review of the bids, bidding procedures, and accompanying documents is made to insure compliance with applicable Federal laws and regulations and to insure that contracts will be awarded to the lowest responsive, responsible bidder.

Review Procedures:

The following documents are to be submitted and reviewed prior to authorizing award of construction contracts.

a. a certified tabulation of all bids received;

b. two copies of the proposal form and bonds from the successful bidder;

c. a statement from the authorized official giving the names of the bidders to whom the grantee wishes to award contracts and the amount of each contract;

d. proof of advertising indicating the circulation dates and time for receipt of bids;

e. a copy of each addendum issued during the bidding period and acknowledgment of its receipt by the successful bidder;

f. signed copies of the certification by the contractors regarding compliance with EEO and MBE requirements;

g. if award is to be made to other than the low bidder, a justification from the applicant indicating why the low bidder is not responsive or responsible;

h. a revised cost estimate, as necessary (see suggested cost breakdown format, Appendix B);

i. other documents showing conformance with applicable State and local laws and ordinances.

Re: 40 CFR 35.935-6, .938

3. Grant Increases/Decreases

Discussion:

The grant amount is adjusted, as appropriate, after receipt of bids to more accurately reflect project costs.

Procedures:

a. Grant increases

If the bids exceed the estimated construction costs and the excess costs cannot be covered by the contingency allowance, and if the grantee wishes to award the contracts on the basis of these increased costs, he must request a grant increase through the State agency. The State must submit a statement to EPA authorizing the grant increase. A contingency allowance (generally between 3 and 5 percent of construction costs) is to be included in the revised project costs to allow for change orders, overruns, etc. Grant increases require a revised grant agreement/amendment, the updating of the GICS, and Congressional liaison notification if the increase exceeds $10,000. Refer to Chapter VII, Increases and Decreases, for specific procedural instructions.

b. Grant decreases

If the bids are less than the estimated construction costs contained in the Step 3 application, the grant is to be reduced accordingly but should continue to include a contingency allowance (generally between 3 and 5 percent of construction costs). Grant decreases require a revised grant agreement/amendment and the updating of the GICS. Refer to Chapter VII, Increases and Decreases, for specific procedural instructions.

c. Contingency adjustment

Regardless of whether a grant increase or decrease is appropriate, the contingency allowance noted in the Step 3 grant application should be adjusted after bids have been received. Common practice has been to allow a ten percent contingency allowance for a Step 3 grant request but to adjust the allowance to between 3 and 5 percent of the construction costs after receipt of bids. Should the contingency adjustment result in a need for a grant increase or decrease, follow the procedures in a. or b. above.

Re: 40 CFR 35.915-1(c), .935-11, .955
40 CFR 30.900-1
PRM 75-21

4. Protests

Discussion:

In the award of contracts, many individuals and firms have a vested interest in the decision as to who will receive the construction contract. If the proposed award is not in favor of their particular interests, they may choose to protest the award. In such instances, the protester must take his grievance to the grantee for initial resolution. In turn, the grantee must advise EPA of the protest, the basis therefore, and his proposed method of resolution before awarding contracts. If the protester is dissatisfied with the decision of the grantee and feels that Federal law will be violated by the proposed award, he may make a written request for the Regional Administrator to review the grantee's decision.

The award of contracts is subject to an immense body of laws and regulations and often involves sensitive legal issues. Therefore, the construction grants reviewer must be familiar with the procurement and protest regulations, and should consult the Regional Counsel when he learns of a protest or of an action which may lead to a protest in order to obtain advice as to any steps he should take relative to the protest. Early consultation with Regional Counsel is particularly important when a porposal is made for award of the contract to other than the low bidder or when an attempt is made to withdraw a low bid.

Review Procedures:

The construction grants reviewer must exercise caution in handling protests, especially with regard to commenting on the nature of the protest or recommending courses of action. Accordingly, the reviewer should:

a. Refer the potential protester to 40 CFR 35.939(b) regarding timing requirements of a protest. Any other comments to the grantee or potential protester should be limited to procedural requirements.

b. Should a protester indicate dissatisfaction with the grantee's decision on the protest and express such disatisfaction to the reviewer, refer the protester to 40 CFR 35.939(b)(2).

The reviewer may wish to consult with the Regional Counsel who will make the preliminary decision as to whether the protest is valid or without merit and who will so advise the Regional Administrator. If the Regional Administrator adopts or concurs with the position that the protest is without merit, the protest will be dismissed without further EPA proceedings. If the protest appears to have some merit, Regional Counsel is responsible for coordinating actions as prescribed in 40 CFR 35.939 to resolve the matter. According to 40 CFR 35.939(d)(2) & (3), the Regional Counsel shall make his report and recommendations promptly, and the Regional Administrator should transmit his determination within one week after receiving such report. The reviewer should assist in gathering data necessary to a final decision and in assuring timely resolution of the protest.

Re: 40 CFR 35.939

5. Rejection of All Bids

Discussion:

Regulations (40 CFR 35.938-4(h)(2)) permit the grantee to reject all bids and resolicit for new offers. However, the exercise of that right is contingent upon the grantee's demonstration of good cause for that proposed action. Any good cause demonstration must reflect that the public interest will be best served by such action in consideration of EPA requirements.

Review Procedures:

A good cause proposal for rejection of all bids by a grantee must be consistent with one or more of the following criteria, as defined in PRM 78-8:

a. specifications are ambiguous or otherwise deficient and an addendum to the invitation is not possible;

b. the grantee's needs have changed and such change could not be imposed upon bidders within the procurement requirements;

c. the specification requirement is determined unnecessary;

d. bids received indicate the grantee's quality requirements were overstated;

e. although bids are acceptable, the grantee is unable to fund its share of costs associated with the lowest acceptable bid;

f. the amounts of all otherwise acceptable bids are unreasonable;

g. the bids failed to provide sufficient competition to insure fair prices;

h. bids were not independently arrived at in fair competition, were collusive, or were submitted in bad faith;

i. applicable Federal laws or policies require delay for further study;

j. good cause rejection may not be based on: litigation over contract award, relaxation of specification requirements not materially affecting competition, omissions or ambiguities not adversely affecting competition or the needs of the grantee, or the lack of a local or in-State firm as low bidder.

Re: 40 CFR 35.938-4(h)(2)
PRM 78-8

6. Authorization to Award Contracts

Discussion:

After reviewing the bids and determining that all regulatory requirements have been satisfied, the grantee is give authorization to award contracts. This authorization is in the form of a letter and should contain instructions for arranging a preconstruction conference with the grantee, his resident inspector, the State agency, the successful contractor and a representative of EPA.

H. PRECONSTRUCTION CONFERENCE

Purpose:

The preconstruction conference is held to identify and clarify the responsibilities of the grantee (and his consultant, where appropriate), the contractor, the State and EPA.

Discussion:

Preconstruction conferences are not mandatory but are to be encouraged wherever possible. The conference may be called at the request of the State, the grantee, the contractor or EPA. Separate preconstruction conferences may also be held to discuss the equal employment opportunity and minority business enterprise responsibilities of each party (specifically where construction costs will exceed $1 million). The procedures below list several areas which might be discussed at the conference. Separate discussions may be held with the grantee, his consultants and contractors as appropriate, depending on the nature of topics covered.

Procedures:

Suggested subjects to be discussed at preconstruction conferences include:

a. the responsibilities and authority of the grantee, the contractor, the resident inspector, the State and EPA;

b. Contractor performance in accordance with progress and payment schedules. (NOTE: It is important to stress that payments will be made in accordance with the schedule and that these schedules, cumulatively, form the basis of EPA's outlay management program. Ultimately, they serve as input to the Treasury Department in planning the timing and amounts of borrowings to finance the operations of the Federal government. Therefore, if progress is not consistent with the schedule, slippage must be corrected or outlay management coordination will be adversely affected);

Re: 40 CFR 35.935-9

c. compliance with Davis-Bacon and related laws concerning the posting and payment of minimum wage rates, and other State and local laws;

Re: 40 CFR 35.935-5, 30.415

d. equal employment opportunity and minority business enterprise requirements;

Re: 40 CFR 35.935-6; 40 CFR part 8

e. access to the work site and records;

Re: 40 CFR 35.935-7

f. requirements for adequate engineering supervision and inspection during construction;

Re: 40 CFR 35.935-8

g. payment documents, requests and procedures for filing, in accordance with construction schedule;

Re: 40 CFR 35.938-6, .945

h. project changes, including time of completion, change orders, change in project scope or grant amount;

Re: 40 CFR 35.935-9, .935-11, .938-5, .955

i. interim and final inspections by the State and/or EPA;

Re: 40 CFR 35.935-14

j. records (including an accounting system which separates allowable and unallowable costs) to be maintained by the grantee, the inspector, and the contractor, and the auditing procedures;

Re: 40 CFR 30.805, .820

k. requirements for timely submission of

- a sewer use ordinance
- a sewer rehabilitation program
- a plan of operation
- an O&M Manual

Re: 40 CFR 35.935-12, .935-16

l. archeological or historical resources requirements, as applicable;

Re: 40 CFR 6.301
PRM 75-27

m. mitigative measures to be employed during construction, as recommended in the environmental assessment and contract documents.

Re: 40 CFR 6.508, .509

n. the use of force account labor where prior approval is obtained from the Regional Administrator, and where in accordance with regulatory limitations.

Re: 40 CFR 35.936-14

I. MONITORING OF CONSTRUCTION ACTIVITIES

1. Change Orders

Purpose:

A change order is the customary method of modifying a construction contract after work has begun and may result in price increases/decreases, revised time of completion, or other project changes. It is a written order from the Grantee to the contractor authorizing an addition, deletion or revision to the work within the general scope of the construction contract.

Discussion:

The following outline of change order review procedures is supplemented by Appendix B, Procedures for Review of Change Orders under EPA Construction Grants, of this Handbook.

During the course of construction, it may be necessary to make changes in the project which require a modification of the construction contract. Project changes which may result from minor errors in the plans and specifications or consist of emergency changes required to protect life or property do not require prior approval by EPA.

Project changes which will substantially alter the design and scope of the project; the type of treatment; the location, size, capacity or quantity of any major item of equipment or which will require additional Federal funds to complete the project must receive the prior approval of the State and EPA before being executed.

Approved change orders resulting in construction cost increases are ordinarily paid for from the contingency portion of the total project cost. However, where the change order or combination of change orders exceeds the contingency allowance, the grantee must request an increase in the grant amount, and the procedures in item G.3 of this Chapter are to be followed.

The Grantee has the responsibility to originate and negotiate all change orders. Proposed change orders should be reviewed as early and expediously as possible in the project, to insure proper negotiation and execution. Pending change orders should be discussed at interim inspections.

Review Procedures:

To process a change order, the reviewer should determine that:

a. the basic change is needed because of

- differing site conditions
- errors/omissions in plans and specifications
- changes instituted by regulatory agencies
- minor design errors
- overruns/underruns in quantities
- factors affecting time of completion

b. the request has been screened to determine that

- identification of the request document is complete
- it includes a justification statement from the grantee
- state agency approval has been given
- prior EPA and State approval has been obtained, where necessary
- the availability of needed additional local funds has been properly certified
- a financial statement showing grant amount and the cumulative effects of prior change orders on project costs is included
- items requiring Federal participation are identified
- evidence of negotiations is included
- it agrees with the unit price or unit price adjustments as specified in the contract documents (where changes in quantity of units exceed 15% of original bid, and total dollar change is significant, negotiation of a new unit price may be appropriate)
- proposed costs are supported by a separate engineering estimate
- cost and pricing data in accordance with 40 CFR 35.938-5(d) is provided for change orders exceeding $100,000

c. the method of accomplishing the change is reasonable, based on consideration of

- alternatives
- secondary effects of the change
- impact on time of completion

d. the request is for eligible work which is directly related to

- construction of a publicly owned treatment works
- approved plans, specifications and cost estimates
- not including work previously determined to be ineligible
- maintaining effluent limitations and schedules of compliance
- assurance of the availability of the non-federal share
- size and capacity related to needs
- no proprietary, exclusionary or discriminatory requirements other than those based on performance
- not requiring a commitment of Federal funds in excess of current State allotments

e. the costs are allowable in accordance with

- the Regional Administrator's delegated authority to determine allowable costs on eligible work
- appropriate laws, rules and regulations
- not including work previously determined to be unallowable
- satisfactory evidence of negotiations assuring a fair and reasonable price for the work
- provisions of the specifications
- guidance in Chapter VII, Section B pertaining to allowable and unallowable costs
- determinations made in policy statements issued by EPA

f. the reviewer will maintain a file with the following documents concerning the contract changes

- contract change order (signed and dated copy)
- attachments
- notifications of approval or denial
- requests for additional information, and responses
- memoranda of meetings and telephone conversations
- updated project cost summary, including allowable and total costs

g. upon review of the change order, the grantee shall be expeditiously notified in writing of the action taken.

Re: 40 CFR 35.935-11, .938-5, .955
40 CFR 30.900-1
PRM 75-4

2. On-Site Inspections

Purpose:

On-site project inspections are made to insure that the project is being managed properly, is on schedule, and is being constructed in accordance with approved plans, specifications and change orders.

Discussion:

On-site project inspections are made during construction (interim) and at the completion of construction. The frequency of interim inspections announced or unannounced will depend upon the size and complexity of the project; however, to the extent possible inspections will be made on all projects at least quarterly. Interim inspections may be made by the State or EPA. If made by the State, they should be coordinated with the Regional Office, and copies of the inspection reports should be furnished to the project officer. EPA may also utilize Inter-Agency Agreement Inspectors. Full time, on-site presence by EPA or the State may be required where appropriate.

Final inspections should be made within 60 days after being notified by the grantee that the project is complete and operating, that the necessary operational staff has been hired, and that the project has been accepted by the grantee. EPA has the responsibility for conducting final inspections but usually the Federal inspector will be accompanied by an official of the State agency.

Regional offices are encouraged to develop and use their own inspection report forms. Appendix B includes a sample inspection report for reference.

Procedures:

a. Interim inspections - the EPA or State inspector shall determine that:

   - the grantee is providing competent and adequate supervision and inspection and is maintaining appropriate inspector's logs;

   - approved plans, specifications and change orders are available at the project site;

- construction conforms to the approved plans, specifications and change orders and is on schedule;

- the latest engineer's estimate of work-in-place agrees reasonably with the actual observed construction;

- reasonable tests of materials and equipment are being conducted and noted in logs or reports (slump tests of concrete for example);

- equipment delivered to the site is being properly protected and stored;

- a project sign is appropriately displayed and identifies appropriate agencies;

- the wage rate decision is prominently displayed and agrees with the contract documents;

- project accounting records are maintained and they distinguish between allowable and non-allowable costs supported by receipts or certified contractor invoices;

- any special construction techniques or practices are being employed in accordance with the grant agreement, including erosion and sediment control measures;

- the grantee has hired the operational staff and is providing training, as appropriate (see O&M requirements below);

- the grantee is preparing an operation and maintenance manual;

- the grantee is making satisfactory progress on the pretreatment program as applicable;

- the grantee is making satisfactory progress toward implementation of UC/ICR systems;

- the grantee is making satisfactory progress toward the completion of sewer use ordinances and the rehabilitation program as applicable;

- the grantee is providing wastewater treatment capability during construction;

- procedure exists to call deficiencies to the attention of the authorized representative.

b. Final inspections - the items under interim inspections should be considered, as appropriate, as well as the following:

- the facilities are complete, operating and, in the case of a treatment plant, will meet the effluent limitations required by the NPDES permit, or BPWTT;

- the facilities conform to the approved plans, specifications and change orders;

- all equipment is operational and performing satisfactorily;

- appropriate operation and maintenance staff has been hired and instructed in the startup and operational procedures;

- laboratory facilities are complete and sufficient to conduct appropriate tests;

- the operation and maintenance manual, with schedule for routine maintenance and testing, is readily available and procedures are being carried out in accordance with the manual;

- accounting records are adequate and will be made available for audits;

- if not previously approved, the grantee is completing the sewer use ordinance and rehabilitation program;

- UC/ICR systems are implemented;

- industrial dischargers are pretreating wastes as required by the pretreatment program.

Re: 40 CFR 35.935-8, -11, -14.

3. Payment Conditions

Discussion:

Grant payments are discussed more completely in Chapter VII of this Handbook. Generally, however, Step 3 grant payments are made in accordance with the outlay schedule. The grantee is responsible for submitting a payment request (EPA Form 2550-16) and supporting documentation. When it is received, EPA will review it against the construction schedule and authorize payment as appropriate.

The grantee is also responsible for meeting particular conditions before he may receive full payment. These have been mentioned in earlier parts of the Handbook but are summarized below for the reviewer's convenient reference.

a. Operation and Maintenance Manual - No more than 50% of the Federal share may be paid until a draft O&M manual, or evidence of timely development, is submitted, and no more than 90% may be paid until the manual is approved by the Regional Administrator.

   Re: 40 CFR 35.935-12

b. Sewer Use Ordinance - No more than 80% of the Federal share may be paid until the sewer use ordinance(s) has been submitted by the grantee and approved by the Regional Administrator.

   Re: 40 CFR 35.935-16

c. Rehabilitation Program - No more than 80% of the Federal share may be paid until the grantee has given evidence of complying with a sewer system rehabilitation schedule, where appropriate, as incorporated in the grant agreement.

   Re: 40 CFR 35.935-16

d. Pretreatment Program - No more than 90% of the grant may be paid until the municipal pretreatment program is approved (unless an extension is granted by the Regional Administrator in accordance with 40 CFR 35.935-19).

Re: 40 CFR 35.907

e. Final Inspection - Final payment may not be made until the final inspection has been completed and the Regional Administrator has determined that the treatment works have been satisfactorily constructed in accordance with the grant agreement and approved plans and specifications.

Re: 40 CFR 35.935-14

4. Plan of Operation

Purpose:

Federally funded treatment works are to be designed, operated and maintained to achieve the effluent limitations required in the NPDES permit or BPWTT. A well planned operation and maintenance program is an essential step in achieving that objective.

Discussion:

Surveys conducted in 1973, 1974, and 1975, which are included in the Clean Water Report to Congress for each of those years, indicate that approximately one-third of the Federally-funded treatment plants surveyed were not achieving the level of efficiency for which they were designed. In most cases, these problems resulted from inadequate operation and maintenance. To prevent the future occurrence of these unacceptable conditions, strict attention is to be focused on operational considerations during facility design and the development of an effective operation and maintenance program for the completed treatment facilities.

During the Step 3 activity, the grantee is to implement a program for efficient staffing, training of staff, and operation and maintenance of all treatment works facilities. The program must insure that the facilities are maintained at the designed level of efficiency to meet the effluent standards as established

in the NPDES permit, and to comply with all other applicable State and Federal requirements for process control, monitoring and reporting. The grantee must provide an adequate budget and a trained staff of personnel to insure the success of the program. The elements of the O&M program should be those included in a Plan of Operation which also identifies required actions and related implementation dates needed to assure proper start-up and continued operation.

A preliminary Plan of Operation should be reviewed concurrent with the review of project plans and specifications and should be included as a part of the Step 3 grant application package. The preliminary plan should be as complete as possible in identifying needed actions and implementation time frames, but specific dates may, of necessity, be omitted until a construction start date is known.

A critical responsibility of the applicant is the preparation of an operation and maintenance manual for each treatment facility, including pumping stations. No more than 50% of the Federal share of the Step 3 grant may be paid until the draft operation and maintenance manual or evidence of timely development is submitted and no more than 90% of the grant may be paid unless the grantee has furnished a satisfactory final operation and maintenance manual.

Review Procedures:

The review of the operation and maintenance program submissions included in the Plan of Operation shall assure compliance with the following requirements:

a. Staffing and training

- that a staffing plan, to include staffing and salary schedules, staff structure and organization, and certification requirements is developed;*

- that the chief operator is hired before construction is 50% complete;

* To be submitted to both State and EPA

- that a preoperation training schedule is developed within 30 days after hiring chief operator;

- that a discussion of hiring problems encountered and actions to solve the problems, if appropriate, is held 60 days prior to start-up;

- that a list of positions filled and qualifications of personnel hired is prepared 30 days prior to start-up* and assurance is given that vacancies will be filled, if appropriate;

- that a continuous training plan and schedule* is developed 30 days prior to start up;

* To be submitted to both State and EPA.

b. Administrative functions

- that program and laboratory facilities are adequate to perform appropriate monitoring and analysis necessary to assure adequate process control and compliance with the NPDES permit and State requirements;

- that arrangements for submission of appropriate operational reports to the State have been made;

- adequate consideration has been given to operational procedures during the start-up period;

- provision is made for employee safety programs and training is conducted in advance of plant start-up;

- provision is made for developing and implementing a maintenance management system;

c. Budget

- provisions is made for adequate annual budget to insure efficient operation and maintenance, including administration, supplies, utility charges, and ancillary equipment;

- provision is made for salaries to attract qualified personnel and to train and upgrade employees.

d. Emergency Operating Plan - in developing the plan the following items and provisions should be taken into account:

- effects of emergencies on operation;
- vulnerability analysis of system;
- protective measures;
- emergency response program;
- periodic revision of plan as necessary.

e. Operation and Maintenance Manual - the O&M manual is the primary document required in the operation and maintenance program, and should incorporate items a-d above into a comprehensive package of instructions and information. Specifically, the manual should include:

- design information describing the components and equipment of the treatment plant, including simplified schematic diagrams of the facilities, pipelines and control systems and detailed diagrams of more complicated areas;

- process information discussing the control of various processes to achieve maximum efficiency, including a clear explanation of process functions of the various components in simplified language with references to appropriate equipment manuals for detailed technical information;

- maintenance requirements, including schedules for routine adjustment and lubrication of equipment, referencing appropriate manufacturer's manuals for details;

- laboratory procedures, specifying various analyses and monitoring schedules required for process control and by the NPDES permit and other regulations, describing laboratory equipment and general maintenance, and referencing appropriate literature for standard test procedures;

- safety aspects of the various process units and related equipment and procedures for complying with the OSHA requirements;

- administrative procedures describing the various records required and reports to be submitted as a function of the State monitoring program;

- troubleshooting procedures and a description of the emergency response plan, including procedures for notification of proper authorities, emergency equipment repair, and references to the appropriate equipment manuals for specifications and limitations of components.

Re: 40 CFR 35.925-10, .935-12
Federal Guidelines, Operation and Maintenance of Wastewater Treatment Facilities, August 1974
Considerations for Preparation of Operation and Maintenance Manuals, (GPO No. EP 2.8: PO 2)
Emergency Planning for Municipal Wastewater Treatment Facilities (GPO No. EP 2.8: W 28/6)
Estimating Laboratory Needs for Municipal Wastewater Treatment Facilities (GPO No. EP 2.2: W 28/3)
Start-up of Municipal Wastewater Treatment Facilities (GPO No. EP 2.8: W 28/5)
Maintenance Management Systems for Municipal Wastewater Facilities (GPO No. EP 2.8: W 28/4)
Estimating Staffing for Municipal Wastewater Treatment Facilities (GPO No. EP 2.8: W 28/3)
A Planned Maintenance Management System for Municipal Wastewater Treatment Plants (GPO No. EP 1.23/2: 600/2-73-004)
PRM 77-3.

CHAPTER VII

FINANCIAL CONSIDERATIONS

A. INTRODUCTION

B. ALLOWABLE AND UNALLOWABLE COSTS

C. FORCE ACCOUNT

D. PAYMENTS

E. INCREASES AND DECREASES

F. AUDITS

A. INTRODUCTION

This chapter discusses various financial considerations that are common to all three step grants.

Section B, Allowable and Unallowable Costs, covers problems faced by the reviewer in dealing with these costs and presents major categories of cost statements.

Section C, Force Account, discusses when this method can be used, prior approvals needed by EPA and other considerations to serve as guidelines for the reviewer.

Section D, Payments, covers prior costs, Step 1, 2, 3, and 2 + 3 grant payment schedules and payments.

Section E, Increases and Decreases, discusses when increases occur, contingency funds covering these, and what the reviewer needs for EPA approval.

Section F, Audits, provides the reviewer with pertinent information to help in answering the questions of grantees and in working with the auditors.

B. ALLOWABLE AND UNALLOWABLE COSTS

1. General

In the process of reviewing grant payment requests, the reviewer is confronted with having to make decisions on the eligibility of certain project costs for which there is no absolute guidance. Such costs, termed "allowable and unallowable" costs, have been assembled in Section B3 of this Chapter to provide uniformity in interpreting their eligibility. In general, for miscellaneous costs to be eligible for grant participation, they must:

a. Be necessary and reasonable and not a normal expense of municipal administration.

b. Be authorized (or not prohibited) and be consistent with Federal, State and local laws or regulations.

c. Be consistent with policies and regulations which are applicable to both Federally assisted and other activities of the unit of government of which the grantee is a part.

d. Not be included in the costs allocable to any other Federally financed program.

In summary, specific allowable costs are not defined by statute as eligible for grant assistance, but must be interpreted as eligible based upon EPA policy, appropriate Federal cost principles, and reasonableness.

Re: 40 CFR 35.940
40 CFR 30.705

2. Allowability Determinations

The cost items listed are applicable to PL 84-660, 92-500 and 95-217 projects. In making eligibility determinations, consideration should be given to commitments previously made to grantees in the absence of prior National policy, pertinent statutes or regulations. Cost items not listed below should be considered on an individual basis. As needed, the reviewer may seek advice from the Municipal Construction Division, Office of Water Program Operations in EPA Headquarters.

Final determinations by the Regional Administrator concerning the allowability of costs are conclusive unless appealed within thirty days in accordance with the "disputes" provisions of 40 CFR Part 30, Subpart J.

Re: 40 CFR 35-940
40 CFR 30 Subpart J

3. Allowability of Miscellaneous Costs

The reviewer should become familiar with 40 CFR 35.940 regarding allowable and unallowable costs.

The following statements of allowability relating to certain construction grants project costs are included for the reviewers ready reference:

- Indirect Costs:

Indirect costs are those incurred for a common or joint purpose, benefiting more than one project or cost objective and not specifically identifiable to the particular project or cost objective benefited. Indirect costs consist of items of a general overhead nature such as office space, utilities, telephone, etc. The costs are allowable if determined on the basis of a negotiated indirect cost agreement and incorporated in the grant agreement.

Re: 40 CFR 30.715-2, 35.940-4

- Travel Costs:

Grantee travel costs - allowable travel costs include travel considered necessary and directly related to the accomplishment of project objectives. Travel not directly related to construction and/or "start up" of the facility, including trips to professional meetings, symposia, lectures, etc., is not allowable as a direct charge to the project. Travel not directly related to

a specific project may, however, be recovered under an Indirect Cost agreement. (Federal Management Circular (FMC) 74-4, 7-18-74.)

Architect/Engineer travel costs - allowable travel costs include travel considered necessary and project related, including onsite travel costs. Costs of relocation of employees and their families may be considered allowable when such travel is justified and approved by the grantee. The cost of transportation between living quarters and the construction site is normally unallowable. In unusual circumstances, where job sites are located in isolated areas and living quarters are not available within 30 miles, travel costs between living quarters and the job site are considered allowable.

Re: 41 CFR 1-15.2 and 41 CFR 1-15.4

- Bond Costs:

All costs associated with the approval, preparation, issuance and sale of bonds (including bond counsel and underwriters' fees) are unallowable for grant participation. Interest on bonds or any other form of indebtedness is unallowable. (FMC 74-4, 7-18-74.)

Re: 40 CFR 35.940-2(f)

- Liquidated Damages:

Monies received by grantees in the form of liquidated damages shall have no effect on the determination of allowable costs of grant projects. However, any additional costs--construction, engineering, legal, or administrative-generated because of a contractor's lack of performance should be covered by the liquidated damages received. Thus, any such increase in cost as a result of lack of performance is unallowable for participation even in the event that the grantee elects not to exercise his right to recover liquidated damages.

- Bid Bond Forfeiture:

All bid bond forfeitures should be treated as a reduction to project construction costs.

- Rate Studies:

Such studies are allowable if required for the establishment of user charge or industrial cost recovery system in order to comply with 40 CFR 35.925-11. Such studies require prior approval either in the grant agreement or an amendment thereto. Allowable costs may include legal, C.P.A., and engineering fees related to the studies. (In order to avoid double payment, care must be exercised to assure that such work is not incident to a general contractual obligation.)

Re: CFR 35.940-3(e)

- Financial Reports and Studies:

To the extent that such reports constitute "Rate Studies" (see above) for user charges and/or industrial cost recovery procedures, the costs are allowable; provided that such studies are approved in advance by the Regional Office and that the results of such studies are acceptable to EPA. Financial reports which constitute studies of, for example, the tax base, structure, etc., to determine the financial capabilities of the applicant or the financial feasibility of the proposed undertaking are similarly allowable. The cost of all other financial reports and studies should generally be considered unallowable in that they constitute a normal function of government.

In this regard the Regional Office should adhere to a strict interpretation of the term "studies". Generally, "studies" refers to preliminary reviews, overviews, examinations, analyses, etc. The interpretation must not be extended to include preparing procedures, designing implementation schemes, drafting statutes or regulations, delineating boundaries relating to finances, issuance of bonds, adjustment of tax rates, establishment of assessment districts, etc. or other activities which are a normal function of government and as such are unallowable.

- Establishment of Special Assessment Districts:

The "mechanics" of establishing special assessment districts developed, for example, on the basis of rate studies (see above), are a normal function of government and as such the costs associated therewith are unallowable. Indluded in this restriction are legal, administrative and engineering costs associated with activities such as: (1) drafting, review and passage of statutes/ordinances (e.g. sewer use ordinances), (2) preparation of regulations, (3) delineation of district boundaries, (4) elections, etc.

This policy extends equally to the establishment of any "special districts" such as election, service, rate, etc. districts (including Regional Authorities) related to the grant project.

- Public Liaison Services:

Such services are generally unallowable since they constitute a type of public information service and as such are not directly related to or necessary for the construction of the treatment works. This does not pertain to public participation; see next item.

- Assistance with State and Federal Regulations:

The cost of assistance associated with addressing State and Federal Regulations and procedures which are basic to the functions of general government, such as preparation of applications and related documents, obtaining state construction permits, discharge permits, etc. are unallowable. Costs growing out of meeting specific Federal statutory requirements such as public participation, and other activities related to the user charge study, facilities planning, NEPA procedures, Uniform Relocation Assistance and Real Property Acquisition Policies Act, procurement requirements, MBE liaison services, etc. are allowable.

If such costs entail assistance which is readily available through Federal or State offices, such as interpretation of regulations, explanations of grant procedures, etc. they should be disallowed.

(In order to avoid double payment, care must be exercised to assure that such work is not incident to a general contractual obligation.)

Re: 40 CFR 35.940-1(h), (s)

- Public Participation On-Site Visits:

Reasonable costs of public participation-related on-site visits (field trips) to observe the operation of waste treatment facilities which employ uncommon processes or features may be included as allowable project costs. Regional Offices must be certain that: (1) a visit will serve to address genuine public concerns, (2) only reasonable costs are included for grant participation and attendance is limited to interested or affected parties whose views can be expected to influence public or official opinion, and (3) travel is to the nearest appropriate location. Regional Offices are cautioned that grant participation in these costs is not a routine matter and should be approved only when they will make an important contribution to the planning or acceptance of a project. Unless written approval for the specific visits and estimated associated costs are received from the Regional Office prior to their taking place such costs will not be eligible for grant participation.

- Cost of Grantee Training Workshops:

Reasonable costs associated with grantee attendance at training workshops/seminars designed to provide instruction in administrative, fiscal and contracting requirements/procedures incident to the EPA grant process may be considered allowable for grant participation. Regional Offices must assure themselves that such training is, in fact, a necessity. For example, a larger city, with a number of ongoing grants, probably already possesses more grant related expertise than could be imparted during such a workshop. Such training must be strictly limited to appropriate grantee employees and receive prior approval from the Regional Office. Potential grantees (if on the current priority list) may also attend and be reimbursed after grant award providing written evidence of advance Regional Office approval for the particular training is submitted with the reimbursement request.

- Redesign/Replanning Costs Resulting from Changes in Federal Requirements:

In those cases in which an applicant's completed or partially completed planning and/or designs are rendered invalid or unacceptable by changes in Federal requirements, both the original cost plus the redesign or replanning costs are allowable. The Regional Office must assure itself that the planning and/or design thus invalidated was undertaken in good faith by the applicant and was not the result of a disregard for existing Federal directives by either the applicant or his agent.

- Cost of Implementing the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (PL 91-646):

Basically there are four categories of costs associated with this Act which may be considered allowable:

(1) Moving and related expenses

(2) Replacement housing

(3) Relocation assistance advisory services (entailing direct services of the grantee in assisting the displaced person(s))

(4) Acquisition of real property.

Documented allowable costs from these categories incurred on or after July 1, 1972, will be treated as other allowable project costs and reimbursed at the same percentage rate. In the case of costs resulting from acquisition or displacement occurring before July 1, 1972, EPA shall pay the full amount of the first $25,000 of such costs for each displaced person. Allowable costs should be determined in accordance with 40 CFR Part 4 and guidelines issued pursuant thereto.

Re: 40 CFR 35.940-1(g)

- Field Surveys to Identify Cultural Resources:

Reasonable costs incident to field surveys to identify historical, architectural, archeological and cultural resources in the primary impact area of grant projects are allowable. Allowable costs must be determined on a case-by-case basis and may include the cost of onsite inspections, review of pertinent documents, photographic reconnaissance, services of archeologists or historians, etc.

Such costs should receive prior approval and delineation by the EPA Regional Office. Survey costs associated solely with the examination of the National Register of Historic Places are unallowable. EPA may participate in the cost of intensive surveys (e.g. "digging") only when a sufficient amount of information exists to indicate that there is a reasonably high probability of discovering important cultural resources.

Re: PRM 75-27

- Industrial Planning:

Allowable project costs do not include either the costs of interceptor or collector lines constructed exclusively or almost exclusively to serve industrial users or the costs allocable to the treatment for control or removal of pollutants in wastewater introduced by industrial users.

Re: 40 CFR 35.925-15

- Facilities Serving Communities and Federal Facilities:

Whenever a planned treatment works will jointly serve a municipality and a Federal facility, that portion of the construction cost allocable to the Federal facility will not be allowable for 75 percent construction grant funding, subject to the following exceptions:

(1) Facility planning costs.

(2) Cost of Step 2 work if a Step 2 grant has been certified by the State for funding to EPA prior to the issuance of PRM 75-35 (12/29/75).

(3) Design and construction costs allocable to Federal facilities producing less than 250,000 gpd or 5 percent of the total design flow of waste treatment works, whichever is less.

That portion of the construction costs allocable to the Federal facility shall be based on all factors which significantly influence the cost of the treatment works. Factors such as strength, volume, and delivery flow rate characteristics will be considered and included to insure a proportional allocation of costs to the Federal facility.

As a minimum, the portion of construction cost allocable to the Federal facility should be based on the ration of its flow to the total design flow of the treatment works. The portion (percentage) allocable to the Federal facility must be agreed upon by the municipality and Federal agency, and approved by EPA prior to award of a Step 2 or Step 3 grant, whichever is applicable, for the works or any portion thereof.

Re: 40 CFR 35.925-16, PRM 75-35

- Site Acquisition vs. Site Preparation Costs:

Site acquisition, including land used for sewage treatment plant site, appurtenant piping and structures, sewer rights-of-way, and pumping stations, whether by purchase, rental, lease or easement, are unallowable. Similarly, all legal, realty, engineering and grantee costs associated with ineligible acquisition are unallowable. Notable exceptions which are allowable if approved are land acquired after 10/17/72 which is an integral part of the treatment process or will be used for ultimate disposal; land acquired after 12/26/77 which will be used for storage before land application or composting and temporary storage. Approval must be

in accordance with pertinent regulations and PRM's, and made prior to land acquisition. Legal, administrative, and engineering costs associated with eligible acquisition are also allowable.

Costs associated with the preparation of the treatment works site (including appurtenant features) before, during, and to the extent agreed upon in the grant agreement or amendment thereto, after construction are generally allowable. These costs include such items as: grade and construction staking surveys, survey for alignment and slope, preparation of working drawings and plans dealing with site preparation, locations, grades, slopes, distances, depth, alignments, etc. Also eligible are costs such as finegrading, seeding, and protective trees and shrubs.

Costs related to reasonable site screening for aesthetic purposes are also allowable. Criteria for participating in aesthetics related work include: support expressed in NEPA related studies, approved facility plans, necessary screening of adjacent properties, whether the facility is in constant public view or remote therefrom, etc.

Re: PRM 75-25, 75-39, 77-5, 78-4

- Certificate as to Title to Project Site:

Legal costs associated with certifying as to the adequacy of the grantee's interest in the project site should be considered a normal function of government incident to the project and as such are unallowable. (Except in the case of grant eligible land as listed above.)

- Acquisition of Privately or Publicly Constructed Waste Treatment Facilities:

Costs incurred by a grantee or applicant associated with the purchase, lease or acquisition of privately or publicly constructed and owned waste treatment facilities are not allowable, except when shown to be in compliance with Agency requirements as provided for in PRM ____ and approved by the Regional Administrator.

Re: 40 CFR 35.940-3(d)

- Demolition of Existing Structures:

Demolition of existing structures constitutes an allowable cost provided that the structures are on the facility site (including rights-of-way for the eligible sewer lines) and that construction cannot be undertaken without such demolition. Off site demolition is unallowable. Aesthetics related demolition is allowable only if it conforms to the criteria relating to the allowability of site preparation outlined above.

If demolition of existing structures is required on a site not previously owned by the grantee, the grantee must address such demolition in the cost effective analysis and demonstrate to the satisfaction of the Regional Office that in choosing the site appropriate consideration was given to the cost of demolition.

- Utilities:

Costs associated with the removal, relocation and/or replacement of utilities (water, electricity, etc.) are allowable when such activity, resulting from a conscious governmental decision, is necessary for and incident to acquisition of real property and the construction of the eligible facility. Where such removal, relocation, and/or replacement does not involve loss of a property right by the utility, such costs are not allowable.

In addition, payment for that portion of cost of equipment substantially different than the pre-existing utility equipment or the cost of utility equipment having greater capacity than that originally in place will be allowable if mandated by local, State or Federal law.

Re: 40 CFR 35.940-1 (k)

In instances where new utility equipment for service to the new facility or increased utility capacity to the new facility requires the installation of new utility equipment servicing that new facility, and where the grantee would by custom or law not receive such installation free of charge, such utility equipment costs are allowable.

- Restoration of Streets and Rights-of-Way:

The cost of restoring streets and/or rights-of-way to their original condition is an allowable cost. The need for such restoration must result directly from the construction of the eligible project. Allowable restoration may include, for example: refilling and patching of street and roadway surfaces (generally limited to the width of the trench), fine grading and reseeding of off-street rights-of-way, reasonable tree plantings, restoration of sidewalks, etc.

- Mobile Equipment*:

Generally, such equipment is allowable if identified by the grantee and approved in advance of purchase by the Regional Office and is directly necessary for the operation and/or maintenance of the overall wastewater treatment facility. Such equipment must be necessary for the transmission of wastewater or sludge or for the maintenance of plant grounds and/or equipment. Allowable items include but are not limited to:

a. Portable stand-by generators.

b. Large portable emergency pumps to provide "pump-around" capability in the event of pump station failure or pipeline breaks.

c. Sludge tanks, trailers, and other vehicles having as their sole purpose the transportation of liquid or dewatered wastes from the collector point to the treatment facility or disposal site.

d. Grounds and building maintenance apparatus. Such apparatus may include, for example: mowers and snow removal equipment (in certain geographic areas). Regional Offices may use such criteria as cost effectiveness, potential for abuse, frequency of use, etc. in considering allowability. Requests for participation based upon less than 100 percent use should be agreed to only in special situations and prorated accordingly.

*NOTE: The grantee is required to maintain property accountability on all such equipment in accordance with A-102 and 40 CFR 30.810.

e. Cars and trucks are unallowable, except for specialized sludge handling/transport equipment as noted in "c" above.

Re: PRM 79-8

- Office Equipment and Furnishings*:

Such items as identified by the grantee and approved in advance by the Regional Office, when installed or located at the treatment works and necessary to the administrative and/or technical (including training and meetings) functioning of the works, may be allowable. In larger facilities allowability may be extended to reasonable special purpose rooms and equipment related to the function of the facility. There may well be instances in which the Regional Office will need to exercise judgment as in the case of "luxurious furnishings", televisions, etc.

- Shop Furnishings*:

Reasonable furnishings for shop areas such as shelves, bins, work benches, etc. are allowable costs.

- Laboratory Equipment and Supplies*:

Generally, laboratory items identified by the grantee and approved prior to procurement by the Regional Office as necessary to conduct tests as may be required for plant operation are allowable. In addition, the cost of a reasonable inventory of chemicals and supplies necessary to start operation of the plant is allowable. Large stocks of expendable materials are, however not allowable. An EPA publication "Estimating Laboratory Needs for Municipal Wastewater Treatment Facilities" discusses equipment needed for various size plants.

Re: 40 CFR 35.940-1(m)

*NOTE: The grantee is required to maintain property accountability on all such equipment in accordance with A-102 and 40 CFR 30.810.

- Safety Equipment:

Based upon the specific needs of individual facilities, necessary and reasonable safety equipment is an allowable cost. Generally such equipment should be delineated in the operation and maintenance manual and the approval of that document may constitute the basis for participation.

> NOTE: Such equipment should meet applicable Federal, State, local and industry safety regulations and standards. The grantee is required to maintain property accountability on all such equipment in accordance with A-102 and 40 CFR 30.810.

- Tools*:

Allowable tools are only those which are specified as special purpose tools necessary for the repair and adjustment of specific process components by the equipment supplier(s)/ manufacturer(s) or approved by the Regional Office. Also allowable--based upon the size, complexity and nature of the treatment works--are those basic tools/machines, generally mechanically powered and usually fixed in place, which, in the opinion of the State and Regional Office, are necessary to assure the uninterrupted functioning of that facility. All other tools are unallowable.

> *NOTE: The grantee is required to maintain property accountability on all such equipment in accordance with A-102 and 40 CFR 30.810.

- Replacement Parts:

Replacement parts identified and approved in advance by the Regional Office as necessary to assure uninterrupted operation of the facility may be included as allowable costs. Allowable replacement items are only those which constitute critical parts or major systems components and which are: (1) not immediately available and/or whose procurement involves an extended "lead-time", (2) identified as critical by the equipment supplier(s), or (3) are critical but not included in the inventory provided by the equipment supplier(s). In those instances where adequate "back-up" components

are built into the system a reduction in replacement parts should be made.

Items of routine "programmed" maintenance such as ordinary piping, air filters, couplings, hose, bolts, etc. are unallowable. See EPA Technical Bulletin: "Design Criteria for Mechanical, Electric and Fluid System and Component Reliability" for additional discussion.

- Collection System Maintenance Equipment:

EPA participation in the cost of such equipment purchased in connection with a construction grant shall be based upon a proration of the participated portion of the collection system to the total system. Thus if EPA participates in 65 percent of the grantee's total collection system, the allowable costs shall constitute 65 percent of the cost of such equipment purchased pursuant to the grant agreement. Generally, the proration should be based upon the relative lengths of the new to the total system rather than cost or size. Such equipment must be reasonable and be approved by the Regional Office.

In addition allowability will be based upon: (1) a demonstrable frequency of need, and (2) the equipment must be necessary to preclude the discharge or by-passing of raw sewage, and/or (3) the equipment is necessary to provide for the health, safety and welfare of the citizens.

- Project Inspection:

Costs associated with technical inspections of the eligible project before and during construction (including change order approved time extensions) are allowable. Such costs must be clearly documented and, to avoid double payment, the work must not be incident to a general contractual obligation.

- Groundwater Monitoring Facilities:

Costs associated with the construction of groundwater monitoring equipment and facilities may be considered allowable only in those cases in which, as a direct result of project construction, the possibility of groundwater deterioration, depletion or modification exists. Allowability may not be extended to the operation, surveillance and/or analyses associated with these facilities. Such facilities require the prior approval of the Regional Office.

- Biological "Seeding":

Under certain conditions (climatic, geographic, nature of wastes, etc.) reasonable costs associated with the purchase and/or transportation of biological seeding materials required for initiating (or expediting the initiation of) the treatment process operation are allowable.

- Service Charges**:

Service charges are defined as: any supplemental charges added to other direct cost (non-salary) which are claimed on an actual cost basis.

Regardless of contract terms, the actual cost of service charges must be supported by accounting records. If the service charges are not supported or if the actual cost is less than the amount claimed, the total difference is unallowable for Federal participation. This is in accordance with the ASCE manual which states that the service charge is for expenses to be reimbursed by the client.

**NOTE: These requirements have been EPA National policy under PL 84-660, PL 92-500 and PL 95-217 as required under 40 CFR 30.800 and .805.

- Fringe Benefits**:

Regardless of contract terms, the actual cost of fringe benefits must be supported by accounting records when they are claimed as a direct charge. If the charges are not supported or if the actual cost is less than the amount claimed, the total or the difference is unallowable for Federal participation. Where the fringe benefits are claimed as a direct charge and also included in the multiplier the duplicate direct charge is unallowable for Federal participation.

- Labor Charges and Related Costs**:

Regardless of contract terms, where charges have been made to the grant and there was no cost incurred, the charges should be questioned. Labor charges and related costs for straight time or overtime hours which are billed but for which cost has not been incurred will be unallowable for Federal participation. (Compensatory time will be considered in determining actual labor costs incurred. However, compensatory time is allowable only if it is incurred in accordance with established company policy, if it is properly controlled and accounted for, and if it is used within an annual accounting period.)

**NOTE: These requirements have been EPA National policy under PL 84-660, PL 92-500 and PL 95-217 as required under 40 CFR 30.800 and .805.

- Start-up Services:

Grant eligible start-up services will average 90 man-days for most treatment plants. For large or complex plants, however, grant eligible start-up services may range up to 300 man-days. Start-up services shall be completed within a period of twelve months. To be grant eligible, the services must be rendered by the design engineer or others identified by the design engineer.

Start-up services include:

(1) Pre and post start-up personnel training--i.e., onsite training given plant operation and maintenance personnel on the operation and control of the specific treatment processes of the facility.

(2) Fine tuning to optimize process control--i.e., expert operational assistance for adjustment of the treatment process and related equipment functions to optimize performance safety and reliability under actual operating conditions.

(3) Laboratory procedures--i.e., onsite training and instruction to assure that the sampling and laboratory testing program needed for satisfactory process control and regulatory monitoring and reporting are fully understood.

(4) Maintenance management system--i.e., start-up services to assure effective implementation of the maintenance management system outlined in the facility's O&M manual.

(5) Records management systems--i.e., services to provide the training needed to implement a records management system as outlined in the O&M manual.

(6) Revise O&M manual--i.e., revising the O&M manual based upon actual operating experience obtained during the start-up period.

Note that costs normally associated with the operation and maintenance of a municipal wastewater treatment facility, such as salaries for operation and maintenance personnel, chemicals (except for the basic inventory required for start-up), power, etc., are not eligible. Also ineligible are the costs of all offsite formal training/orientation programs. Finally, wet and dry equipment and facility testing is the responsibility of the contractor under the supervision of the Engineer.

Re: 40 CFR 35.940-1(p)
PRM 77-2

- Pretreatment Program:

Costs associated with the development of a municipal pretreatment program in accordance with 40 CFR Part 403 are allowable. Also allowable are costs for the purchase of a limited amount of monitoring equipment, construction of facilities to be used by the municipal treatment works in the pretreatment program, and limited sampling of industrial discharges to municipal works. Not allowable are costs for construction of privately-owned pretreatment facilities unless authorized, or costs for monitoring equipment used by industry for sampling discharges to municipal works.

Re: 40 CFR 35.940-1(r)
.950-2(l), (m), .940-3(f)

- Individual Systems:

The costs for the treatment and treatment residue disposal portions of toilets with composting tanks, oil-flush mechanisms or similar in-house devices are allowable.

Costs for acquisition of land on which individual systems are located are not allowable, nor are costs for the waste generating fixtures and associated plumbing to the treatment unit (where pipes are situated on private property). Modifications to homes or other buildings for installation of special devices are excluded from grant eligibility. However, reasonable costs of construction site restoration to original conditions are allowable.

Re: 40 CFR 35.918-2
PRM 79-8

- Royalties and Patents:

Royalties for the use of, or for rights in, patents may be allowable costs within the limitations of principles contained in PRM 79-2. Prior to selecting a patented process or product upon which a royalty must be paid, the grantee must consider the need and reasonableness of the royalty, cost-effectiveness of the royalty, and means to avoid use of patented products. Where a grantee will

be required to pay a royalty on a process or product necessary for performance of the grant agreement, procedures outlined in PRM 79-2 must be followed in determining the allowability of the cost.

Re: PRM 79-2

- Crossover Sewers:

Crossover sewers (lateral or collection sewers) may be grant eligible when it is demonstrated that they are more cost effective than the installation of an eligible parallel sewer. A crossover sewer or crossover service connection is defined as "the sewer to connect one or more properties on one side of a major street, road or highway to the collector sewer on the opposite side." A deviation from the regulations (see 40 CFR 35.905-13) must be obtained when the crossover sewer system serves only one property (service line) but is more cost effective than an eligible alternative sewer line.

C. FORCE ACCOUNT

1. General

In most instances a grantee contracts with engineering or construction firms to perform project related work. The program, however, permits use of the "force account" method wherein the grantees use their own employees, material, and equipment to perform all or part of the project work.

The use of force account is permitted for any Step 1, 2 or 3 grant work provided that prior written approval is obtained from the Regional Administrator. Such approval is based on the grantee's demonstrating that he possesses the necessary competence required to accomplish such work, and that:

a. the work can be accomplished more economically by use of such method;

b. emergency circumstances dictate its use.

In order to avoid problems with the force account method and to assist grantees who will be using force account, the reviewer must be familiar with those items needing prior approval. The reviewer must determine in advance that adequate procedures, records and controls will be used by the grantee. In particular, payroll records should adequately show the distributions of hours worked and identify work performed.

Re: 40 CFR 35.936-15(b)

2. EPA Prior Approvals

A grantee must obtain prior written approval from the Regional Administrator to use force account labor in lieu of subagreements for any Step 1 or Step 2 work in excess of $10,000, any sewer rehabilitation work in excess of $25,000 performed during Step 1, or any Step 3 work in excess of $25,000 unless the grant agreement stipulates the force account method. "Use of the force account method for Step 3 construction shall generally be limited to minor portions of a project."

Before approving a force account, the reviewer should consider the following items:

a. all anticipated project administrative costs, including salaries of administrative employees, travel expenses, etc., in order to determine the extent of their allowability.

b. proposed methods of timekeeping and timechecking, methods for establishment of wage scales for laborers and mechanics and methods for establishment of salaries of supervisory employees (sample time sheets, proposed wage rates and an explanation of the methods for determining those rates and other information necessary to comply with this item should be submitted as soon as possible);

c. an indirect cost figure that is going to be used as part of the costs billed to the project (this must be a formal written agreement with EPA);

d. allowances for use, repair and overhaul of grantee owned equipment and rental rates for rental equipment, including when rental rates begin, apply and end, and the extent of allowability of repairs and overhaul (precise usage records for such equipment must be maintained);

e. the writeoff or depreciation of small tools and other expendable items or equipment;

f. any disposal and adjustment of costs in connection with unused material and tools left over on completion of work.

Re: 40 CFR 35.936-14(a),(c)

3. Other Considerations

The following considerations provide additional guidelines for the reviewer in the force account area:

a. adequate cost accounting records must be maintained,

b. satisfactory controls must be established and used to assure that all material, supplies, equipment, labor cost, etc. charged to the project are actually used in connection with the project;

c. the Copeland Antikickback Regulations apply (see Appendix C-2 of 40 CFR Part 35);

d. adequate insurance must be maintained. This insurance is the same as that discussed in 40 CFR 35.936-22 covering such construction insurance as is customary and appropriate, including fire and extended coverage, workmen's compensation, public liability and property damage and "all risk" as required by local or State law.

Re: 40 CFR 30.645, .810
40 CFR 35.936-14, 936-22(b)
PRM 75-15

D. PAYMENTS

1. General

It is the policy of EPA to process payment requests and to make periodic progress payments as expeditiously as possible. Payments are to be made in accordance with the project outlay schedule, which is developed by the EPA at the time of contract award. The outlay schedule is revised annually and whenever actual project performance strays significantly from the schedule.

NOTE: It is imperative that grantee payment requests be processed as quickly as possible. On "routine" requests, procedures assuring a 48 hour "turn around" are to be established. All payment requests are to be considered "routine" except for the first and final payments on Step 1, 2 and 3 awards; the 50%, 80% and 90% payments on Step 3 awards; and specific interim payment points established, in writing, for a particular project.

Re: 40 CFR 35.937-10, .938-6, .945
PRM 75-22, PRM 79-9

2. Prior Costs

After June 30, 1975, no Step 1 project work may be initiated without a grant award unless the State (based on the review and approval of a plan of study) has requested the Regional Administrator to reserve grant funds. After June 30, 1975, Step 2 work initiated without first having received a grant from EPA is not eligible for grant participation.

Occasionally grant applications will be received for projects in which prior costs have been incurred. These must be handled on a project by project basis and be in accordance with the regulatory date limitations as described in 40 CFR 35.925-18.

In considering the eligibility of prior costs, the reviewer should bear in mind that:

- they must be claimed prior to the grant award or no payment may be made for those costs;

- they should be supported by documents identifying dates and the nature of the work performed;

- they should be examined in light of the allowable/ unallowable cost statements in "Section B" of this chapter.

Re: 40 CFR 35.925-18, .945(a)

3. Schedules

Schedules for the completion of any of the three grants steps are contained in the grant agreement/amendment. The work schedule and accompanying payment schedule are generally discussed with the applicant prior to the grant application and should reflect realistic targets. The reviewer has the responsibility for final approval of the schedule. On the basis of the payment schedule, the EPA Region prepares an outlay schedule for management of Federal grant funds associated with the project. Payments made in accordance with the payment schedule ensure that the outlay management will be maintained properly. When actual project performance strays significantly from the schedule, adjustments must be made to properly control outlay management.

Any time that a progress schedule is revised, the Municipal Permits Office of EPA should be notified.

a. Step 1 and Step 2 - Periodic progress payments for Step 1 and 2 work are to be made on the basis of completion of the step or completion of specific tasks within the step grant as contained in the grant agreement. Every effort should be made to divide the scheduling into tasks, but where this is not possible or practical, the grantee should submit a certified statement as to percentage of completion of the work on a periodic basis.

b. Step 3 - Step 3 payment schedules should realistically reflect the likely construction progress. For example, early equipment purchases and seasonal weather conditions may require large grant payments for certain

months. If the monthly requests exceed those on the outlay schedule, the schedule must be revised. Payment schedules should be structured so as to preclude any need for frequent changes.

Re: PRM 79-9

4. Interim Payments

Problems with both payment requests and payments can be minimized if, at the time of the grant award, the payment request procedure is discussed with the grantee. Each region has specific internal procedures for handling requests and processing payments so the reviewer must be familiar with these. Payments, generally, are handled as follows:

- the grantee submits EPA Forms SF-271 (Outlay Report and Request for Reimbursement for Construction Programs) directly to the Regional Financial Management Office or, as directed, to the individual responsible for work performed;

- the grantee provides necessary documentation to support the request;

- all support documents and a copy of the SF-271 form are forwarded to the project officer,

- "routine" requests are processed immediately; "non-routine" requests are sent to the project officer who must complete his action within ten days.

- grantees are to submit requests for Step 3 payments monthly.

NOTE: The Federal share shall be based upon those costs which, at the time of the payment request, the grantee is currently obligated to pay. For example, if the grantee has retained a certain percentage from a construction pay estimate, EPA shall base its payment upon the amount of the estimate less the retained amount. In addition, when retainage is used, the grantee must compensate the contractor by use of an interest-bearing escrow account.

Re: PRM 75-22

a. Payment Requests Review

It is the responsibility of the construction grants reviewer to monitor the progress of the project. One means of doing this is by periodically reviewing payment requests and supporting documents. At any time before the final payment, the reviewer may cause any request(s) for payment to be reviewed or audited, however, the frequency of the periodic reviews should depend on the size and complexity of the particular project. In instances where a monthly payment schedule has been established, the reviewer should not perform a detailed check of the request and supporting documents each month. If a problem is discovered later when checking the supporting documents, it can be resolved on a subsequent payment. Judgment will be required to avoid unnecessary delays.

Re: 40 CFR 35.945(c)

b. Documentation

The following are some examples of task documentation for Step 1 and 2 projects:

- a grantee certified percentage of work complete--preferably divided into tasks (e.g. Step 2: 35% completion of design criteria; 60% completion of preliminary draft plans and specs; 90% completion of final draft plans);

- working drafts completed for specific tasks and which have been received in the Regional Office or are held by the grantee;

The following are some examples of documentation for Step 3 projects:

- the engineer's latest monthly estimate of work in place;

- invoices accompanying claims for work completed,

- equipment invoices accompanying claims for purchases.

c. Grant Conditions

The reviewer is reminded to check the grant agreement/ amendment and any subsequent amendments for any special grant conditions prior to approving payment request. An example of this would be the limit on the percentage of the Federal share that may be paid prior to the submission of O&M manual, sewer use ordinance, etc. (Chapter VI, F).

5. Final Payments

The request for final payment is submitted by the grantee when the final inspection is completed and the treatment works have been determined satisfactorily constructed in accordance with the grant agreement. By acceptance of the final payment, the grantee agrees to assign to the United States the Federal share of refunds, rebates, credits or other amounts (including any interest thereon) properly allocable to costs for which the grantee has been paid by the Government under the grant. The grantee thereby also releases and discharges the United States, its officers, agents, and employees from all liabilities, obligations, and claims arising out of the project work or under the grant, subject only to such exceptions which may be specified in writing between the Regional Administrator and the grantee.

Funds recovered after final payment which are subject to reallotment shall be added to the amounts last allotted to the subject State, and shall be handled in the same manner as the latest allotment.

Re: 40 CFR 35.945(e), (f), PRM 77-9

6. Refunds, Rebates, Credits, etc.

The Federal share of any refunds, rebates, credits, or other amounts (including any interest on them) that has accrued to or been received by the grantee in relation to the project, to the extent that they are properly allocable to costs for which the grantee has been paid under a grant, must be credited to the current State

allotment or paid to the United States. If the Regional Administrator approves, the grantee may be allowed reasonable expenses incurred in securing these refunds, rebates, credits or other amounts under the grant.

Re: 40 CFR 35.945(d)

E. INCREASES AND DECREASES

1. Increases

Grant increases most commonly occur because of cost overruns occurring after the receipt of bids, cost of major change orders, or cost of a sewer system survey. As soon as the grantee sees that costs are going to be substantially more than those upon which the grant is based, the grantee must notify the State and EPA and give an estimate of the amounts involved. EPA will not increase a grant until the State has approved an increase from its available allotment and reallotments.

In order to make a determination on the increase, the reviewer must:

- have a written justification for the increase from the grantee;
- have an approval letter from the State;
- determine that the increase in cost is eligible for grant participation;
- determine that funds for the increased grant are available in the State's allotment.

Re: 40 CFR 35.935-11, .955
40 CFR 30.900-1

2. Increase Notification Procedure

Upon approval of an increase in the grant, the following procedures must be carried out: (Detailed explanations of each step can be found in Chapter IV, F.)

- a grant amendment must be prepared (EPA Form 5700-20); (if the increase in the grant amount is over $10,000, the grant amendment is not sent to the grantee until five working days after signing by the Regional Administrator to allow for Congressional notification);

- the grant amendment information must be entered into GICS;

- Standard Form 240 must be prepared for clearinghouse notification;

- Notification of Grant Award Action, EPA Form 5700-1B, must be prepared and transmitted to Headquarters.

3. Decreases

Grant decreases most commonly occur when the bids received are less than the estimated construction costs contained in the Step 3 grant application. In most instances, a request for a decrease is not made by the grantee, but action is initiated by the State or EPA after the review of the bid material. The grant is reduced as necessary but the new project cost contains a contingency allowance (generally between three and five percent of construction costs).

4. Decrease Notification Procedure

For a grant decrease, the following procedures must be followed:

- if EPA has initiated the decrease, the State is to be notified of the decrease and the State allotment is to be adjusted accordingly;

- a revised grant agreement/amendment must be prepared (EPA Form 5700-20);

- a revised grant amount must be entered into GICS:

- Standard Form 240 must be prepared for clearinghouse notification;

- Noficiation of Grant Decrease Action, EPA Form 5700-1D, must be completed and transmitted to Headquarters.

F. AUDITS

1. General

By signing the grant agreement/amendment for a Step 1, 2 or 3 project, the grantee agrees that its books. documents, records, and papers, and those of its contractors, are accessible to the EPA Regional Administrator, the Comptroller General of the United States, the State agency, or any authorized representatives. The EPA Office of Audit is responsible for audits of all Step 1, 2 and 3 grants. For Step 3 grants, however, it is the general rule that only those projects having grants over $250,000 will be audited unless there is some indication of irregularities.

Re: 40 CFR 35.935-7
40 CFR 30.605, 30.805

2. Objective

The objective of audits of construction grants projects is:

a. to determine whether the management controls exercised by the grantee through its management system, accounting system, procurement system, and property control system are adequate to assure that costs claimed/incurred are reasonable, allowable, and allocable to the project under the grant terms and conditions, Federal Management Circulars, and applicable EPA regulations;

b. to identify any non-compliance with applicable grant provisions or EPA rules and regulations and to provide recommendations for improvement.

3. Types of Audits

There are two types of audits, interim and final.

a. Interim audits are performed during the earlier part of a project to review internal accounting controls, procurement systems, design and construction controls, and costs incurred.

b. Final audits are performed after completion of the project to review the grantee's records to assure that costs claimed are reasonble, allocable, and allowable and that the grantee has met the grant objectives.

4. Criteria for Choosing Projects

Not all Step 1, 2 or 3 projects are audited. For Step 3 projects, it is the general rule that only those with grants over $250,000 will be audited unless there is some indication of irregularities. Also, the intensity of the audit will vary from project to project depending on its complexity and the problems encountered.

The EPA Office of Audit utilizes relevant reports, construction grant file information, the results of sampling tests and the following criteria to select projects for audit:

- size of the grants/projects
- existence of unit-price contracts
- type of contracts and subcontracts
- the number and significance of change orders
- experience with prior grantee's project audits
- identification of deficiencies

The EPA grant reviewer will be called upon to supply the auditors with the following information to assist in determining the scope, schedule, resource plans and estimates of audit efforts:

- grant number
- grantee name, address and phone
- eligible project cost
- grant amount
- number and dollar value of change orders

- number, amount and type of construction and engineering agreements

- extent of force account work

- cut off date

- whether construction is located in a flood hazard area requiring the grantee to purchase flood insurance

- NPDES Permit.

5. Major Activity Areas for Audit Focus

The major activity areas that are addressed during the audits include the grantee's accounting, procurement and project management practices. Both interim and final audits will include the audit of costs associated with these activities.

a. Accounting Practices - the grantee's accounting system should include the following:

   (1) accounting records

   (2) supporting documents

   (3) traceability

   (4) segregation of costs (allowable/unallowable; direct/indirect)

   (5) internal control

   (6) accounting reports.

b. Procurement Practices - the grantee is responsible for demonstrating that engineering and construction contracts were awarded in compliance with the regulations.

c. Project Management Practices - the project management approach applied by the grantee is significant to his ultimate ability to control cost and schedules.

6. Final Report

The final audit report issued by the Office of Audit is an advisory report only and any action such as recovery of funds is the responsibility of the Regional Administrator.

Once the audit review is completed, the process of issuing a final report is flexible, depending on the complexity or seriousness of any deficiencies noted in relation to the project. In general, the following procedures will be followed:

a. the rough draft report will be presented to the grantee. The grantee and its subcontractors have two weeks to answer any questions raised in the draft;

b. the Office of Audit will incorporate the grantee's answers into the report and present this report to the Regional Construction Grants Branch Chief. The Branch Chief and Project Officer will meet with the auditor to resolve any issues raised in the report in order to reach concurrence;

c. an exit interview will be held by the auditors with the grantee to discuss the findings in the final report;

d. the final report will be presented to the Regional Construction Grants Branch Chief who will recommend necessary action to the Regional Administrator.

The key to this entire process is flexibility because at any one point the auditor may want to meet with the Project Office to discuss findings and resolve issues. The reviewer will generally be involved in the discussions to resolve issues after the grantee has responded to the rough draft. It is the Project Officer's responsibility to determine whether exceptions and claims in the report are justified.

The final report will contain a statement of concurrence between the Regional Administrator and the Office of Audit. A final report may be issued, however, even if both parties do not concur. There may be circumstances where the Regional Administrator chooses to withhold comment pending further investigation. This is usually done to protect the Agency in cases where future litigation may be involved. Final resolution rests with the Regional Administrator.

Re: Audit Guide for Construction Grant Program
EPA Order 2750.2, Attachment A, 6/8/79